

On-Line Brokerage: Keeping Apace of Cyberspace

EXECUTIVE SUMMARY

I. INTRODUCTION

Recent advances in information technology -- particularly the Internet -- are revolutionizing commerce. The securities industry, most significantly on-line brokerage, is at the forefront of this revolution.

Research reports estimate that last year's \$415 billion in online brokerage assets will grow by more than sevenfold to \$3 trillion in 2003. The 3.7 million on-line accounts open in 1997 have almost tripled to reach 9.7 million by the second quarter of this year. On-line trading volumes have increased dramatically over the last several years. According to one analyst, volume has increased from under 100,000 trades per day in the second quarter of 1996 to over half a million in the second quarter of 1999. The percentage of equity trades conducted on-line has grown to 15.9 percent of all equity trades in the first quarter of 1999.

On-line brokerage has significantly changed the dynamics of the marketplace, causing one of the biggest shifts in individual investors' relationships with their brokers since the invention of the telephone. For the first time ever, investors can -- from the comfort of their own homes -- access a wealth of financial information on the same terms as market professionals, including breaking news developments and market data. In addition, on-line brokerage provides investors with tools to analyze this information, such as research reports, calculators, and portfolio analyzers. Finally, on-line brokerage enables investors to act quickly on this information.

The pace of change and the strength of the securities markets generally has enabled investors to more directly participate in the securities markets. This confluence of events - - the development of technology affordable to investors and increased investor access -- has raised a number of questions for the industry and the regulators. The questions addressed in this Report are:

1. What will the brokerage industry look like in the future? Where is it headed?

The Report provides a number of statistics to put in context the growth and activities of on-line investors and firms. It also describes the various products and services currently offered on-line. Finally, the Report describes various trends in the industry, including: (a) the continued growth of on-line investing and the pressure it has put on traditional firms to offer on-line services; (b) how the growth of on-line brokerage will

impact the services firms offer going forward; and (c) how firms are developing technology to provide automated, but personalized, advice on-line.

2. What challenges do regulators face in applying the suitability doctrine on-line?

A well-established doctrine, suitability refers to a broker-dealer's obligation to recommend only those investments that are suitable for a customer. In order to trigger a suitability obligation, a registered representative must make an investment recommendation to his or her customer. In the on-line environment, pinpointing what constitutes a recommendation can be difficult. As data mining technology enables on-line firms to customize information and provide it to customers, this question becomes even more pressing.

3. How has technology impacted on-line firms' performance and evaluation of their best execution obligations?

The duty of best execution requires a broker-dealer to seek the most advantageous terms reasonably available under the circumstances for a customer's transaction. Although this duty evolves with changes in technology and market structure, the Commission has stated that broker-dealers must carry out regular and rigorous evaluations of execution quality across markets and consider price improvement opportunities. The combined events over the last three years of : (a) the growth of on-line brokerage, (b) the move to quoting in sixteenths, (c) implementation of the Order Handling Rules, and (d) advances in order routing technologies have impacted how firms approach fulfilling their best execution obligations.

4. How have on-line investors' demand for market information impacted the pricing of real-time data?

The federal securities laws grant the Commission broad authority over information about securities quotations and transactions. The Commission must ensure that market participants and the public can obtain this information on terms that are "fair and reasonable" and "not unreasonably discriminatory." The Internet's ability to broadly disseminate real-time information to the public and the concomitant rise of on-line brokerage have substantially increased demand for market data. This demand has raised a number of questions, including: (a) whether individual investors pay too much for the information and (b) how much of that data revenue should be devoted to the operations of self-regulatory organizations.

5. How do firms ensure sufficient capacity to keep up with the systems demands resulting from on-line trading?

Over the past year, many on-line firms have experienced some type of systems delay or outage that affected the ability of their customers to place orders. Despite the

industry's efforts to improve capacity, the Commission's highest number of complaints about on-line trading comes from customers who cannot access their firms' systems. On-line firms vary in their approach to measuring systems capacity and in their disclosure to customers about the risks of systems delays and outages.

6. What type of investor education does the typical on-line customer need and want?

Investor education is critical to investor protection. The decreased personal interaction between an on-line firm and its customers presents interesting challenges to providing investor education. Investors can now access an unprecedented amount of financial information without the guidance of a broker. Educating on-line investors requires an understanding of how these investors trade and the appropriate time and place to provide them with educational information. At the same time, the Internet provides a valuable resource for the Commission to more widely disseminate investor education materials.

7. What are the regulatory challenges involving "cyber chats" or on-line discussion forums?

While on-line discussion forums may educate and provide a sense of community to investors, they also may provide a venue for fraudulent behavior. Many issuers monitor on-line discussions about their companies but refrain from addressing rumors about them in the marketplace for fear that they may create a continuing duty to correct or update. Instead, issuers oftentimes go to court to unmask the "anonymous" posters of information.

Broker-dealers have generally refrained from sponsoring on-line discussion forums on their sites although anecdotal evidence indicates that some firms may consider doing so.

8. How do firms protect the privacy of their on-line customers' personal information?

Customers increasingly are concerned about the privacy of their personal information. As on-line firms' data mining capabilities develop and the number of financial conglomerates continues to grow, so do customers' concerns about what these institutions can and will do with their personal information. Control over customers' personal information was recently the subject of much discussion in the financial modernization legislation debate. While the Gramm-Leach-Bliley Act requires the Commission and other regulators to adopt specific privacy rules, it appears the discussion is far from over.

9. How should brokerage firms be able to compensate Internet financial portals?

Websites known as portals are considered the "on ramp" to the Internet, attracting millions of monthly viewers. Well-known portals include Yahoo! Finance, America Online, Quicken.com, and Microsoft MoneyCentral. Portals have become broker-dealers' rivals for the attention of on-line investors. In addition, portals have become important intermediaries between broker-dealers and their customers. A number of broker-dealers have entered into cobranding arrangements with portals, either paying a flat up-front fee or a per order "connection" fee for every order transmitted by an investor who hyperlinks from a portal to the broker-dealer.

II. FINDINGS AND RECOMMENDATIONS

Suitability Roundtable participants generally subscribed to the traditional notion of suitability, but suggested that the obligation did not apply to some, if not all, on-line activities. Although the participants were not unanimous on this point, the majority of them wanted clarification or guidance from regulators. Resolving this issue will require several considerations. First, how should the regulators interpret the concept of "recommendation" online? Push and pull technologies make this a difficult question to answer. Regulators need to consider how defining suitability on-line may impact information flow and customer access. Although some would argue that the Internet gives investors (and consumers generally) too much information, investors may not want this information flow restricted, even at the expense of receiving unsuitable advice.

The Report recommends that the Commission:

1. obtain information from the industry on: (a) how data mining products would work, (b) what information the products would provide to the firms, and
(c) whether customers would understand that the firm had provided them with customized information;
2. alternatively, include as part of future Commission or SRO examinations a review of what services firms provide to their customers based on information derived from data mining; and
3. work with the SROs to consider the hypothetical scenarios and relevant analysis, found in the Appendix to the Suitability Section of the Report, in providing guidance to the industry regarding on-line suitability obligations.

Best Execution Technology is making best execution an especially critical concept in today's market structure, and a significant competitive factor. Indeed, technology provides firms with the opportunity to adopt a new approach to order routing and to meeting their best execution obligations. In the roundtable discussions, many on-line brokerage participants contended that speed and certainty of execution are factors that should receive greater emphasis in their best execution evaluations. Moreover, some

participants questioned whether on-line customers actually understood how their brokers' order routing decisions affected their total execution cost.

The Report recommends that the Commission:

1. encourage the industry to demonstrate the relative importance of factors such as speed and certainty of execution in today's market environment;
2. consider requiring market centers to make certain uniform information available on various best execution factors;
3. consider requiring broker-dealers to regularly provide customers with plain English information about: (a) the execution quality available on different market centers; (b) the broker-dealer's order handling practices; and (c) inducements for receiving order flow received by the broker-dealer; and
4. evaluate the potential impact of new order routing technologies on brokers' best execution obligations, investors, and the markets.

Market Data The Report briefly outlines the pricing structure for retail users of market data. Roundtable participants generally agreed that the Internet warrants a reevaluation of the pricing model for delivering real-time market data to individual investors. However, the participants recognized the industry's need to meet the costs of creating and maintaining an infrastructure to collect and disseminate market data.

The Report concludes that the Commission should encourage the broadest possible dissemination of real-time market data to investors, which requires evaluating whether the current pricing scheme for market data is consistent with the federal securities laws. Because the Commission currently is involved in such an evaluation, the Report recommends that the Commission's upcoming market data concept release address the issues raised in this section.

Systems Capacity In the roundtable discussions, the participants acknowledged occasional systems failures are inevitable, but indicated that they have committed significant resources to ensuring that their systems remain operational. The Report concludes that the Commission should focus on methods to ensure more adequate systems capacity at all broker-dealers.

The Report recommends that the Commission consider requiring broker-dealers to:

1. maintain and periodically test contingency plans;
2. maintain records of significant systems outages;
3. conduct regular systems testing and evaluation; and

4. include plain English disclosure of the risks of systems delays or outages in new account documentation.

The Report also encourages the Commission to repropose the broker-dealer operational capability rule.

Investor Education The Report reviews the current status of investor education and makes certain recommendations for improvements. The Report recognizes that the roundtable firm participants taking into account the roundtable participants' preference for keeping customers on their websites and that it would be useful to educate investors on their sites. The Report also notes that it would be helpful to understand the behavior of on-line brokerage customers in determining the most effective means for disseminating investor education material.

The Report recommends that:

1. firms partner with the Commission in helping to educate investors; and
2. the Commission study on-line investor behavior to determine the best place and time to educate investors on the Internet.

On-line Discussion Forums The Report describes on-line discussion forums on the Internet and the challenges these forums pose to issuers, market participants, and regulators. The roundtable discussions focused on two separate areas: (1) addressing rumors on on-line discussion forums; and (2) whether broker-dealers should offer this feature on their websites.

The Report recommends that:

1. the Commission conduct or encourage researchers to conduct a study analyzing the effect of chat room discussions on company's stock prices; and
2. broker-dealers operating on-line discussion forums consider adopting certain best practices to prevent investor confusion.

Privacy The Report describes: (1) the rising concerns over on-line privacy; (2) how the Gramm-Leach-Bliley Act addresses privacy concerns; and (3) surveys on-line firms' privacy policies. The roundtable discussions focused on how on-line firms address, if at all, investor privacy.

The Report recommends that the Commission:

1. evaluate on-line firms' information collection practices; and

2. consider certain factors in conducting its statutorily required study on privacy.

Portals The roundtable discussion focused on how broker-dealers want to change the way they compensate portals for routing investors to them. Specifically, firm participants indicated that they want to compensate portals based on the number of accounts opened by viewers who hyperlink to a broker-dealer from a portal. Such a “success-based” fee is typically how other commercial partners pay portals, but the federal securities laws prohibits broker-dealers from paying portals that are not registered broker-dealers in a way that gives them a salesman’s stake in the transaction.

Because the federal securities laws generally prohibit entities not registered as broker-dealers from receiving securities transaction-based compensation, the Report recommends that the Commission consider whether alternative compensation arrangements are appropriate for entities not registered as broker-dealers.

III. CONCLUSION

Technology has made this an exciting and challenging time for the industry and the Commission. As discussed in this Report, the Internet is rapidly making on-line trading ubiquitous. This Report provides the Commission with a comprehensive examination of the critical issues to be addressed in the area of technology. Although it may still be premature for extensive rulemaking in this area, this Report highlights for the Commission certain key issues facing investors and the industry and recommends how the Commission can resolve some of these issues.

The Commission staff is already at work exploring ways to help firms fulfill their duty to ensure effective customer service, best execution, high-quality disclosure, and responsible advertising, whether on-line or off. Through inspections, surveillance, enforcement, and investor education, the staff is responding swiftly and decisively to the challenges posed by the constantly evolving technology.

This Report continues our progress in molding securities regulation to fit the age of technology.

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I. TRENDS IN ON-LINE BROKERAGE

Electronic brokerage actually predates individual investors' access to the Internet. In the mid-1980s, a number of broker-dealers offered customers software and direct dial-up access that permitted them to submit orders via their personal computers.¹ In the early 1990s, several broker-dealers gave customers the ability to enter orders through private computer networks. In 1995, broker-dealers introduced the first systems that allowed customers to submit orders through the Internet. Approximately 160 broker-dealers now offer on-line trading.² In less than five years, on-line brokerage has become an important channel for conducting retail brokerage transactions.

¹ In response to the development of such systems, the Commission issued a release that anticipated many of the issues facing on-line firms and investors today, such as suitability and access to market data. Exchange Act Release No. 21,383 (Oct. 9, 1984), 49 Fed. Reg. 40,159 (1984). [hereinafter *Computer Brokerage Release*].

² See *Appendix 1* for a list of on-line broker-dealers.

A. Current Status

1. Statistical Snapshot

a. On-Line Investors

According to a survey on U.S. equity ownership by the Investment Company Institute (“ICI”) and the Securities Industry Association (“SIA”), investors who trade equities on-line tend to be younger and more affluent than those who use traditional full-service firms.³ On-line investors have a median age of 41, median household income of \$73,800, and median household financial assets of \$229,000. They are more often college-educated than other investors. The typical on-line investor has \$127,600 invested in equities.⁴ The ICI and SIA estimated that only 11 percent of individuals trading equities in 1998 (or five percent of all equity owners) traded on-line.⁵ In the 1999 Annual SIA Investor Survey, 18 percent of investors responded that they used the Internet to buy or sell securities in 1999, up from 10 percent in 1998.⁶

b. On-Line Accounts

U.S. Bancorp Piper Jaffray (“Piper Jaffray”) estimates that by the end of the second quarter of 1999 there were 9.7 million on-line accounts, up from 3.7 million in 1997 and 7.3 million in 1998. Discounting for multiple accounts, Piper Jaffray estimates that there are now approximately 5.8 million on-line traders.⁷ Jupiter Communications estimates that \$415 billion in assets were in on-line accounts in 1998.⁸

³ ICI and SIA, *Equity Ownership in America*, Fall 1999 at 29 [hereinafter *ICI/SIA Survey*].

⁴ These statistics generally concur with the on-line customer demographics offered by several roundtable participants.

⁵ *ICI/SIA Survey*, *supra* note 3, at 31.

⁶ Yankelovich Partners, 1999 Annual SIA Investor Survey: Investors’ Attitudes Towards the Securities Industry Nov. 1999 at 33 [hereinafter *1999 Annual SIA Investor Survey*].

⁷ U.S. Bancorp Piper Jaffray, *On-line Financial Services Update* (Sept. 1999) at 11. *See also* Rebecca Buckman, *Firm Pegs Accounts in On-line Trading at 3.7 Million*, WALL ST. J., Mar. 25, 1999, at B10 (discusses discrepancy between Forrester Research and Gomez Advisors, which reported 3.7 million and 7.3 million on-line brokerage accounts, respectively).

⁸ Jupiter Communications: *\$3 Trillion in Assets by 2003 in Online Brokerage Accounts, But Customer Service Still Lacking*, Sept. 1, 1999 <<http://www.com/jupiter/press/releases/1999/0901.html>> [hereinafter *Jupiter Report*].

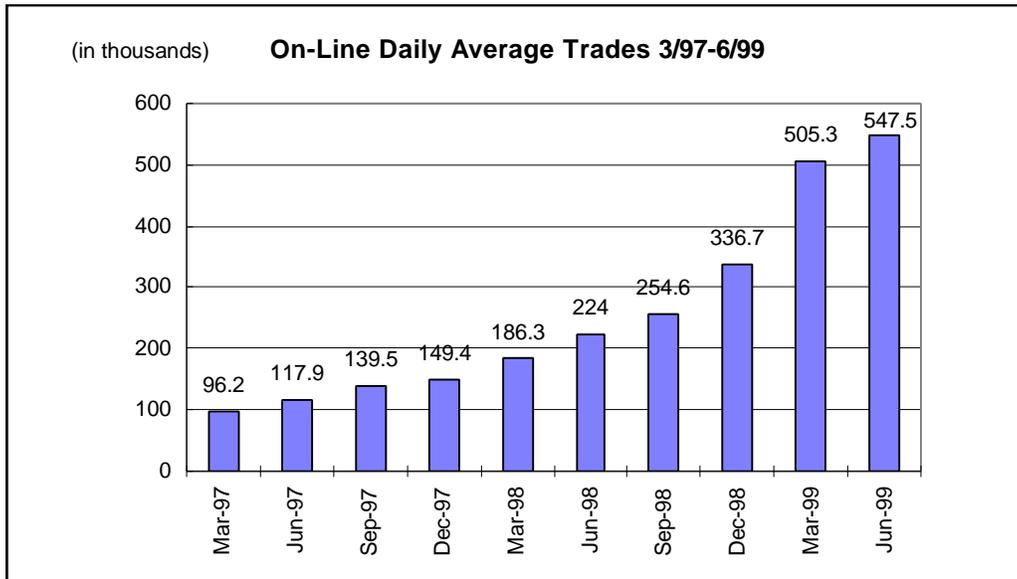
c. On-Line Trading Volume

On-line equity trading volume has grown dramatically over the past several years. Piper Jaffray reported that there was a daily average of 547,500 on-line trades in the second quarter of 1999. However, as the following graph shows, the growth in on-line equity trading volumes slowed significantly in the second quarter of 1999. Subsequently, there have been indications that, while on-line trading volumes may have witnessed their first sequential decline in the third quarter,⁹ growth has once again picked up in the fourth quarter.¹⁰

⁹ See Credit Suisse First Boston (“CS First Boston”), *On-line Trading Update: Volumes Weak in July* (Aug. 3, 1999).

¹⁰ See *Online Brokers Jump as Analyst Points to Higher Trading Volumes* (Nov. 12, 1999) <<http://www.dowjones.wsj.com/archive/gx.cgi/AppLogic+retrieve?id=ON-CO-19991112-000601.djml&d2>>.

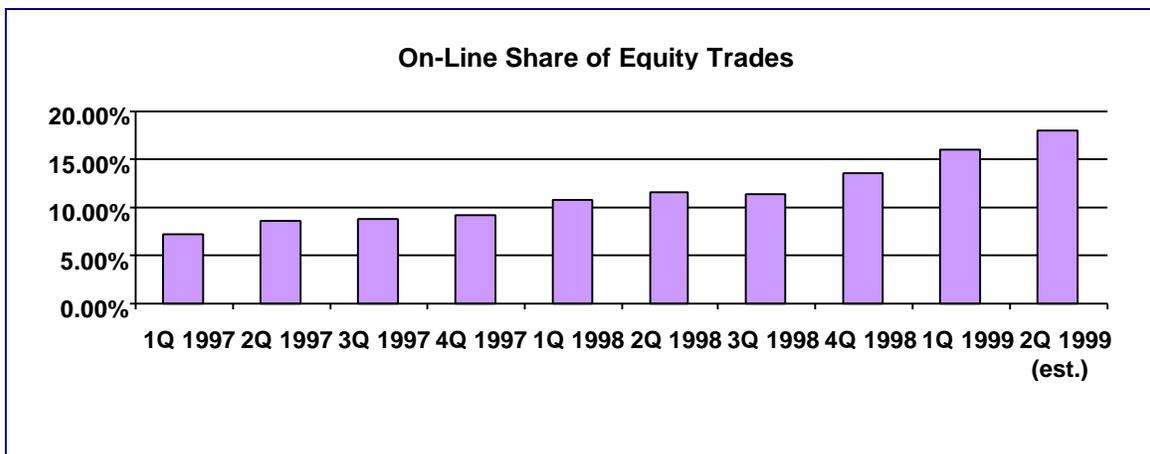
Chart I-1



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Not only have on-line equity trading volumes risen, but on-line trading is accounting for an increasing percentage of overall equity trading. CS First Boston reported that in the first quarter of 1999, almost one in six equity trades (15.91 percent) took place on-line.¹¹ As the following chart indicates, on-line trading volume has almost tripled in the past two years.

Chart I-2



Reprinted with permission from CS First Boston

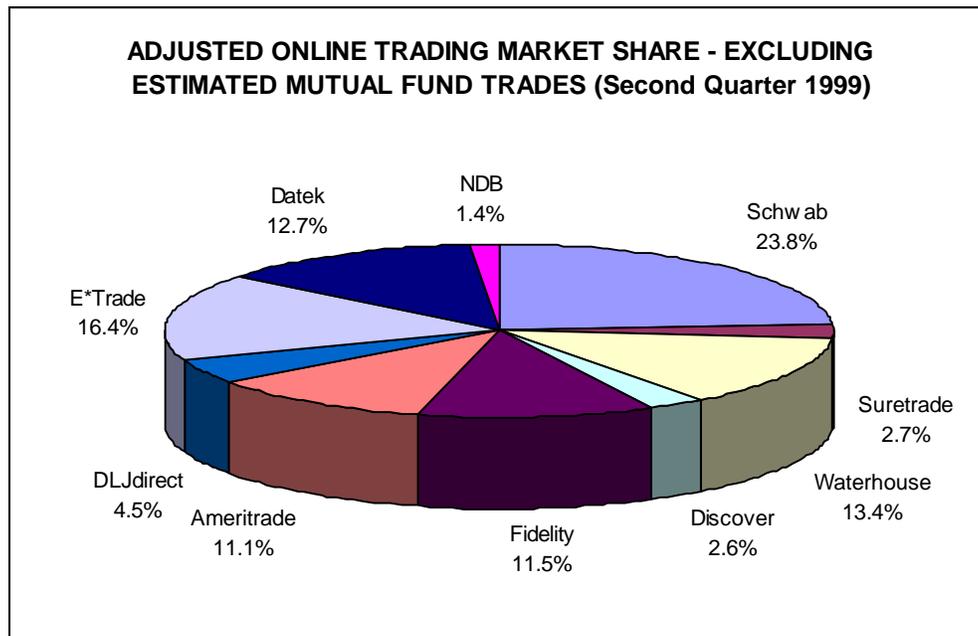
¹¹ CS FIRST BOSTON, ON-LINE TRADING QUARTERLY: 1ST QUARTER 1999, June 1999 at 4 [hereinafter *CS First Boston On-Line Trading Quarterly*].

On-line trading accounts for an even higher percentage of overall equity and options trades by retail investors. Piper Jaffray estimates that on-line firms processed 37 percent of all retail trades in equities and options in 1998.¹²

d. On-Line Market Share

While over 160 firms offer on-line trading, a few players currently dominate the market. Recent entrants, including Merrill Lynch, PaineWebber, and American Express certainly will impact the current division of on-line trading market share.¹³

Chart I-3



Reprinted with permission from U.S. Bancorp Piper Jaffray

e. On-Line Commission Rates

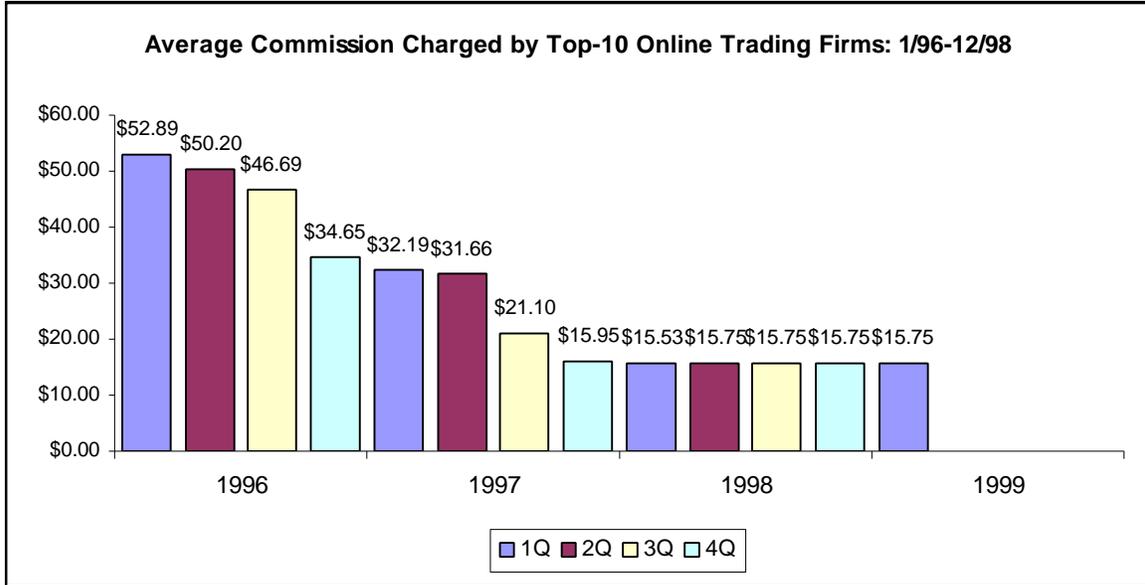
In the first few years of on-line trading, competition among on-line firms dramatically reduced commission rates. As the following chart shows, the average commission charged by

¹² U.S. Bancorp Piper Jaffray, *On-line Financial Services Update* (Mar. 1999) at 1.

¹³ See, e.g., Rebecca Buckman, *American Express Plans to Overhaul, Relaunch On-line Brokerage Operations*, WALL ST. J., Oct. 6, 1999, at C7; Joseph Kahn and Patrick McGeehan, *Morgan Stanley to Offer On-line Trading to All its Customers*, N.Y. TIMES, Oct. 18, 1999, at C1; Ruth Simon and Charles Gasparino, *Full-Service Brokers Complicate On-line World*, WALL ST. J., Oct. 19, 1999, at C1; Charles Gasparino and Rebecca Buckman, *Horning In: Facing Internet Threat, Merrill to Offer Trading On-line for Low Fees*, WALL ST. J., June 1, 1999, at A1; Walter Hamilton, *Rivals' Ranks Grow in On-line Trading Field*, L.A. TIMES, Oct. 21, 1999.

the top ten on-line firms recently has stabilized at about \$15.75 per trade. Some on-line firms have lowered commission rates even further, particularly for their most active customers.

Chart I-4



Reprinted with permission from CS First Boston

2. Products and Services Currently Offered On-Line

On-line investors can click onto a firm's website and, frequently at no charge, find market data, historical charts, securities analyses (*e.g.*, analyst reports, industry reports, earnings estimates, comprehensive charts, news stories), stock and mutual fund screeners, asset allocators, mutual fund supermarket offerings, interactive calculators, and customizable home pages.

On-line firms offer trading in equities, mutual funds, listed options, and fixed-income securities. Many on-line firms also offer access to IPOs, after-hours trading, and pre-opening trading. Investors can opt to have these services delivered not only to their personal computers, but via wireless communications as well (*e.g.*, pagers or personal digital assistants).

Moreover, investors can access information on-line that was previously unavailable or difficult to obtain, such as information about hedge funds,¹⁴ proxy voting records,¹⁵ a mutual

¹⁴ *Site Offers Research on Hedge Funds*, AM. BANKER, Sept. 22, 1999, at 9 (discussing www.hedgeworld.com, which intends to be clearing house for data and discussion for hedge funds).

¹⁵ See Patrick S. McGurn, *CalPERS Unveils New Governance Web Page*, ISSUE ALERT, Feb. 1999, at 5.

fund's investment record,¹⁶ daily price information about certain fixed-income securities,¹⁷ and information about corporate issuers.¹⁸

B. Trends in On-Line Brokerage

1. Continued Growth of the On-Line Channel

Industry analysts foresee continued growth both in the number of on-line brokerage accounts and account assets. Forrester Research predicts that by 2003, 9.7 million U.S. households will manage more than \$3 trillion in 20.4 million on-line accounts.¹⁹ Jupiter Communications estimates that by 2003, 20.3 million households will trade on-line and also puts total on-line account assets at more than \$3 trillion.²⁰ According to the 1999 SIA Investor Survey, 28 percent of respondents stated that they were either very or somewhat likely to begin using the Internet to trade securities in the next 12 months.²¹

One securities analyst described what he perceives to be the five sources of on-line market growth today: (1) traditional mutual fund investors investing incremental income in stocks; (2) employees who previously let employers invest for them now investing for themselves; (3) new investors in the market favoring on-line firms; (4) investors transferring their accounts from full-service firms; and (5) investors who open on-line accounts while maintaining their full-service accounts.

¹⁶ Jeffrey M. Laderman, *A Mutual Fund that Lets it all Hang Out*, BUS. WK., Sept. 27, 1999, at 126 (Open Fund posts on its website every trade that it makes).

¹⁷ See, e.g., The Bond Market Association <<http://www.investinginbonds.com>> (visited November 15, 1999); Toddi Gurtner, *The E-Bond Revolution*, BUS. WK., Nov. 15, 1999, at 270.

¹⁸ See National Investor Relations Institute ("NIRI") Releases Follow-Up Survey on the Growing Use of Communications Technology in the Practice of Investor Relations (visited Nov. 1, 1999) <<http://www.niri.org/publications/alerts/ea051898.cfm>>.

¹⁹ Forrester Research, *Net Investing Goes Mainstream* (visited Nov. 1, 1999) <<http://www.forrester.com/ER/Research/Report/Analysis/0,1338,5876,FF.html>>.

²⁰ *Jupiter Report*, *supra* note 8. In this same report, Jupiter Communications predicts that 80 percent of revenue will come from interest, fees, and non-transaction services by 2003, up from 36 percent in 1998. It expects the number of trades and resulting commission revenues generated per household to drop by 2003. *Id.*

²¹ *1999 Annual SIA Investor Survey*, *supra* note 6, at 40.

2. Convergence of On-Line and Full-Service Brokerages

The big question is where does on-line brokerage go from here. Does it represent an evolutionary step or a revolutionary event? Is it merely the natural evolution of discount brokerage from a telephone-based technology platform to an Internet-based one?²² Or does it represent a revolution in the way brokerage will be conducted in the future? Will it be a necessary channel for every broker? Will technology drive the convergence of the business models of full-service and the more upscale on-line firms?

a. On-Line Firms

Discount brokerage firms pioneered the industry's move to on-line trading. Initially, these firms did not need to rethink their business model or unbundle their services to provide on-line executions. As shown in Chart I-4, the on-line industry recently underwent a "virtual price war" over commission rates. Some firms avoided or eventually removed themselves from the fray, preferring instead to differentiate themselves by offering more services.

One roundtable participant observed that important quality distinctions exist among on-line firms in areas such as ease of access, pricing of services, and information resources. An on-line firm participant stated that the challenge ahead for on-line firms will be to teach customers how to use the available research tools; otherwise, customers will be overwhelmed with information.

A roundtable participant representing a market research firm believed that on-line firms will continue to differentiate themselves by mimicking the process of investment assistance that investors expect from traditional firms. This participant also believed that on-line firms will give their customers more access to research, portfolio management tools, and financial planning.

²² According to some industry participants, there already has been somewhat of a convergence off-line between discount and full-service firms:

Traditionally, the term discount broker has been used to distinguish broker-dealers who allow customers to enter unsolicited or non-recommended orders for their accounts from broker-dealers who provide investment advice and, through, registered representatives assigned to specific customers, solicit the purchase of specific securities (called full-service brokers). The term discount arises out of the original prototype, in which the unsolicited broker charged a commission which was substantially discounted from the typical commission charged by the full-service broker. Since 1980, the prototype has substantially changed, while the moniker stayed the same. Discount brokers now provide added services, such as access to research and other information and full service brokers allow substantial discounts in commission to certain individuals. . . .

Letter from Michael J. Anderson, President, Ameritrade, et al. to Jonathan G. Katz, Secretary, SEC (dated Dec. 9, 1998).

While the most significant recent trend seems to be full-service firms seeking to establish an on-line presence, some on-line firms are trying to establish an off-line presence.²³ To borrow a phrase, these on-line firms are seeking to build a “clicks and mortars” business.²⁴

b. Full-Service Firms Go On-Line

The availability of on-line trading at reduced commission rates has forced full-service firms to reconsider the viability of their commission-based pricing models. These models traditionally bundle execution services and investment advice into one transaction fee. Several full-service are already moving from a commission-based pricing model to an asset management fee model for broker-assisted and on-line trading and/or competitively-priced on-line per trade commissions.²⁵

As full-service firms go on-line, however, the most significant challenge they face is a potential “channel conflict” between their traditional method of distributing financial services -- the registered representative -- and their new distribution method -- the Internet.²⁶ Some full-service broker-dealers are seeing customers shift from trading through a registered representative to trading independently on-line.²⁷ In the traditional full-service model, the customer typically develops a stronger relationship with the registered representative than with the firm itself. When a registered representative leaves the firm, he usually takes his “book” of clients with him. In the on-line model, however, the customer develops the stronger relationship with the firm itself, rather than with any registered representative. While some full-service firms have moved slowly in establishing an on-line presence because of potential

²³ Gaston F.Ceron, *E*Trade Could Be Looking for Alliance*, DOW JONES NEWSWIRES (Sept. 9, 1999); Blaise Zenega, *On-line Shopping Gets Real*, RED HERRING, Sept. 1999, at 112 (on-line and off-line retailers are integrating their sales channels); Christine Stubbs, *Getting Physical*, RED HERRING, Sept. 1999, at 116 (reasons that on-line businesses may purchase off-line businesses); Catherine Yang, *No Website is an Island*, BUS. WK., E.BIZ, Mar. 22, 1999, at EB38 (discussing how on-line and off-line firms are marketing both in the real world and in cyberspace).

²⁴ Jonathan Webber, *Clicks and Mortar*, THE INDUSTRY STANDARD (July 26, 1999) <<http://www.thestandard.com/articles/display/0,1449,5636,00.html>>.

²⁵ Joseph Kahn, *Full-Service Brokerage Seek Foothold On-Line*, N.Y. TIMES, Oct. 21, 1999, at 2.

²⁶ See Jerry Useem, *Internet Defense Strategy: Cannibalize Yourself*, FORTUNE, Sept. 6, 1999, at 121 (gives examples of companies that have shifted to new business strategies that destroy the value of past investments).

²⁷ See, e.g., *National Discount Brokers Group, Inc. Management's Discussion and Analysis of Financial Condition and Results of Operation*, May 1999 (company's commission income increased principally due to a 31 percent increase in customer average daily tickets but was offset by more customers trading with National Discount Broker's lower-priced automated systems instead of higher cost registered representatives).

channel conflicts, others have established an on-line presence to avoid having their customers transfer a portion of their assets elsewhere.²⁸

Roundtable participants generally believed that registered representatives would not disappear as full-service firms go on-line, but acknowledged that their role would evolve. One full-service brokerage participant remarked that customers will gravitate toward firms that give them the choice of investing on-line and off-line.

Another full-service brokerage participant contended that information transparency will create more intelligent customers, changing the registered representatives' advisory role and consequently the culture of larger broker-dealers. This participant observed that registered representatives previously had to spend much of their time with ministerial duties, such as providing stock quotes, faxing account statements, or telephoning the customer about an earnings report. The participant posited that because the customer can help himself to this information on-line, registered representatives can devote more time to adding value in the form of customer advice.

An on-line brokerage participant asserted that while most investors will use the Internet to retrieve investment information, not everyone will trade on-line. Instead, this participant believed that full-service firms will have fewer representatives to serve their customers and will leverage their resources to provide customers with more and better technology-related services.

Finally, a full-service brokerage participant said that it is risky to continue to view the world in terms of on-line versus off-line clients. This participant believed that regulators need to think about regulating customers' on-line and off-line activity as if it was a seamless relationship.

3. Brokers Providing Customized On-Line Content and Financial Advice

A number of broker-dealers have begun to personalize website content to create dynamically generated website content relevant to each user.²⁹ By personalizing website

²⁸ Charles Gasparino and Rebecca Buckman, *Facing Internet Threat, Merrill to Offer On-line for Low Fees*, WALL ST. J., June 1, 1999, at A1 (Merrill Lynch announces plans to offer low cost trading after registered representatives complained that they were losing customers to on-line trading); Charles Gasparino and Rebecca Buckman, *Some Top Brokers at Merrill are Jumping Ship as Company Prepares to Enter On-line Waters*, WALL ST. J. Sept. 15, 1999, at C2; Rebecca Buckman, *Morgan Stanley's On-Line Experiment is Test for Traditional Brokerage Firms*, WALL ST. J., Sept. 8, 1998, at C1; Randall Smith, *Full-Service Brokers Are Put in a Bind*, WALL ST. J., June 1, 1999, at C1; and John Williamson, *Full-Service Brokers Must Use Net or Keep on Losing Ground*, AM. BANKER, Aug. 21, 1998, at 8 (to differentiate themselves on-line, full-service firms must leverage their on-line capabilities, "including greater mobility and accessibility of data, providing real-time data or improving efficiency, and channeling and filtering information for their customer").

content, broker-dealers can create customer loyalty, lower administrative costs, increase revenues,³⁰ and cross-sell products and services.³¹

There are two general types of personalization: push and pull technology. With pull technology, the website user sets his preferences and the on-line merchant sends information tailored to these preferences.³² With push technology, an on-line merchant develops a user profile based on observations about the users' behavior on-line ("tracking the clickstream") or transaction history. The merchant can either classify users and target different information to different categories of users or recommend products based on user profiles that it has developed.³³

²⁹ Personalization has been described as "customer relationship management" or "mass customization." A number of books have been written on this subject: DON PEPPERS AND MARTHA ROGERS, PHD, *ENTERPRISE ONE TO ONE: TOOLS FOR COMPETING IN THE INTERACTIVE AGE* (1999); SETH GODIN AND DON PEPPERS, *PERMISSION MARKETING*, (1999); FREDERICK NEWELL, *THE NEW RULES OF MARKETING: HOW TO USE ONE-TO-ONE RELATIONSHIP MARKETING TO BE THE LEADER IN YOUR INDUSTRY* (1997).

³⁰ According to CS First Boston, on-line firms that personalize and push information such as breaking news to customers may be "generating higher activity levels in their existing customer bases, which can lead to huge incremental gains in overall trading levels." CS FIRST BOSTON: *ON-LINE TRADING QUARTERLY*, *supra* note 11, at 3.

³¹ Alex Frew McMillan, *Data Mining Goes On-line*, CNNFN (Sept. 24, 1999) <http://www.cnnfn.com/1999/09/24/investing/q_datamine/> (discussing how broker-dealers intend to use data mining techniques to sell to investors); Chuck Epstein, *Financial Securities Firms Take Aim At Customers*, WALL ST. & TECHNOLOGY, Sept. 1999, at 32 (financial institutions are beginning to cross-sell financial products to customers who interact with the firm through the Internet, a call center, or a branch office). Producers of personalization software include: Andromedia <<http://www.andromedia.com>>, Applix, Inc. <<http://www.applix.com>>, Broadvision, Inc. <<http://www.broadvision.com>>, eShare Technologies, Inc. <<http://www.eshare.com>>, IBM Corp. <<http://www.ibm.com>>, MessageMedia, Inc. <<http://www.messagemedia.com>>, Naviant Technology Solutions <<http://www.naviant.com>>, Nestor, Inc. <<http://www.nestorinteractive.com>>, Net Perceptions, Inc. <<http://www.netperceptions.com>>, Personify, Inc. <<http://www.personify.com>>, Pivotal Corp. <<http://www.pivotal.com>>, Sterling Software, Inc. <<http://www.infoadvan.com>>, SAS Institute, Inc. <<http://www.sas.com>> ServiceWare, Inc. <<http://www.molloy.com>>, Sybase, Inc. <<http://www.sybase.com>>, and Vignette Corp. <<http://www.vignette.com>> (all visited Oct. 27, 1999).

³² For example, Charles Schwab & Co., Inc. allows viewers to create a personalized web page incorporating Schwab and Excite content into the Schwab site. *Schwab, Excite to Launch Personalized Web Pages*, INSTITUTIONAL INVESTOR, May 10, 1999, at 2.

³³ See, e.g., Phil Patton, *Buy Here, and We'll Tell You What You Like*, N.Y. TIMES, Sept. 22, 1999, at 22; William J. Holstein et al, *Click 'til You Drop ...*, U.S. NEWS & WORLD REP., Dec. 7, 1998, at 37; Chris Taylor, *Once Upon a Time*, TIME, Nov. 2, 1998, at 37.

On-line firms have already begun to segment their customers by account size and trading patterns to reward preferred customers.³⁴ For example, active traders may get trading screens.³⁵ High net worth clients may get a “concierge service” to act as a facilitator or handholder.³⁶

One analyst stated that firms are segmenting products by customer to take care of their best customers by account assets and trade rates. At the roundtables, one on-line firm said that it currently puts all its customers into the one-size-fits-all category but that future plans include segmenting customers and delivering information to them accordingly. Another on-line firm stated that firms should customize the on-line experience of each investor.

Many other firms are also thinking about data mining, although they are early in their data mining capabilities.³⁷ It seems inevitable that firms will use information customization to compete. Doing so will provide customers with a means to sift through the enormous amount of “noise” on the Internet. It also will provide firms with another means to deliver personally relevant content to their customers and to market themselves through the services they provide.³⁸

³⁴ See Joseph Kahn, *Web Brokerage Firms Roll Out the Red Carpet to Lure Bigger Investors*, INT’L. HERALD TRIB., Sept. 14, 1999, at 16 (discusses firms giving red carpet treatment to high-end investors).

³⁵ See, e.g., *Schwab Desktop System for Frequent Traders*, AM. BANKER, Aug. 26, 1999, at 7 (Charles Schwab introduces Velocity for active traders); Lynnley Browning, *Fidelity Uses Merger to Boost On-line Investing Service*, BOSTON GLOBE, Sept. 28, 1999 (LEXIS, News Library, 90 Day File) (Fidelity introduced Powerstreet for active traders).

³⁶ D.F., *NDB Tests Services for Wealthy Customers*, FIN. NETNEWS, Sept. 20, 1999, at 38 (National Discount Brokers is testing its new “Concierge Group” service targeted at high net worth clients); see also, Geri Coleman Tucker, *Schwab Exec Heads Personal Finance Start-Up*, USATODAY, Oct. 19, 1999, at 3B (discusses MyCFO, a “financial butler” for the superrich, offering investment advice, portfolio management, tax preparation, and bill payment).

³⁷ Kerry Massaro, *Ernst & Young Study Shows Increase in CRM Spending by 31%*, WALL ST. & TECHNOLOGY, at 14 (Ernst & Young study of customer relationship management applications found that 63 percent of respondents did not know if customer relationship management spending was increasing or decreasing profitability; 60 percent did not know if such spending was helpful in cross-selling; 25 percent segmented their customers by profitability. Still, 77 percent of respondents had between one and ten CRM projects and 54 percent considered them to be mission critical).

³⁸ A 1998 Jupiter Communications study found that customizing increased 25 electronic commerce sites’ new customers by 47 percent and revenue by 52 percent. Robert D. Hof, *Now it’s Your Web*, BUS. WK., Oct. 5, 1998, at 164. Amazon.com was the first on-line business to use technology to analyze its customers’ purchase patterns and suggest other books that customers with similar purchase patterns had bought in the past. Robert D. Hof, *Amazon.com, The Wild World of E-Commerce*, BUS. WK., Dec. 14, 1998, at 106. The securities industry is expected to increase its spending on customer relationship management software by 14 percent annually through 2003, from \$120 to \$170 billion today to \$250 to \$300 billion in 2003. Chuck Epstein, *Financial Services Firms Take Aim*

Roundtable participants largely agreed that the next battleground will be fought over providing automated financial advice on-line. Data mining and personalization technologies will permit broker-dealers to engage in what Forrester Research calls “the industrialization of financial advice.”³⁹ The ability to customize advice will become increasingly important as more investors trade on-line.⁴⁰

Some of the ways on-line firms might use these technologies include:

- An on-line broker sees that an investor tends to purchase shares of blue-chip companies after their stock prices have fallen. The broker can send an e-mail to the investor when the stock price of a similar blue-chip company has fallen.⁴¹
- An investor has what he believes to be a well-diversified portfolio of stocks. His on-line broker-dealer e-mails a report to him demonstrating that he is actually not as well diversified as he believes and suggests alternative investments to reach his diversification goals.⁴²
- A broker-dealer preparing an IPO for a PC manufacturer could use its data warehouse to find a 60-year old Iowa investor who likes PC manufacturers and has never sold any of her holdings in such companies.⁴³
- An investment adviser could use an investor’s profile and its library of records on financial funds to create a personalized investment portfolio on-line.⁴⁴

at Customers, WALL ST. & TECHNOLOGY, Sept. 1999, at 32 (describing 1998 Jupiter Communications study on customization).

³⁹ Geoffrey Smith, *A Richer Future for On-line Investors*, BUS. WK. E.BIZ, Mar. 29, 1999 <<http://www.businessweek.com/ebiz/9903/ep0329.htm>>.

⁴⁰ See Pamela Savage Forbat, *Are You Done For?* REGISTERED REPRESENTATIVE, June 1998, at 64 (wealth of information on-line creates more demand for advice). LAWRENCE E. LIFSON AND RICHARD A. GEIST, *THE PSYCHOLOGY OF INVESTING* (1999) at 33 (information overload makes it difficult for investors to sell stocks); Michael Menduno, *Retirement Plans Go On-line*, THE INDUSTRY STANDARD, July 23, 1999, <<http://www.thestandard.com/article/display/0,1151,5601.html>>.

⁴¹ Smith, *supra* note 39.

⁴² *Id.*

⁴³ Timothy J. Mullaney, *Building the Perfect Shareholder*, BUS. WK. E.BIZ, Sept. 27, 1999, at 1999 WL 27295102 (discusses how investment banks could use data mining techniques to target the “perfect” shareholder).

⁴⁴ Heather Green, *The Information Gold Mine*, BUS. WK. E.BIZ, July 26, 1999, at EB17 (PIMCO Funds creating investment portfolios using data mining techniques).

II. SUITABILITY

A. Background

As discussed in the preceding section, providing financial advice on-line will be the next area of focus for the brokerage industry. This likely trend raises the issue of how suitability rules apply on-line.

Generally, suitability refers to a broker-dealer's obligation to recommend only those specific investments that are suitable for its customers. The concept of suitability comes from self-regulatory organization ("SRO") rules and the shingle theory, which developed under the antifraud provisions of the federal securities laws.⁴⁵

1. SRO Rules

The National Association of Securities Dealers ("NASD") first adopted a suitability rule in 1939 as part of its Rules of Fair Practice.⁴⁶ This rule requires NASD member firms to have reasonable grounds for believing that any recommendation⁴⁷ they make to a customer is suitable, based on what the customer has disclosed, if anything,

⁴⁵ For a discussion of suitability generally, see Lewis D. Lowenfels and Alan R. Bromberg, *Suitability in Securities Transactions*, BUS. LAWYER, Aug. 1999 at 1557.

⁴⁶ This rule is currently designated Rule 2310, "Recommendations to Customers (Suitability)." Rule 2310(a) provides:

In recommending to a customer the purchase, sale or exchange of any security, a member shall have reasonable grounds for believing that the recommendation is suitable for such customer upon the basis of the facts, if any, disclosed by such customer as to his other security holdings and as to his financial situation and needs. NASD MANUAL (CCH) (1999).

⁴⁷ The NASD has made several pronouncements regarding when a broker-dealer makes a "recommendation." In 1996, the NASD stated that:

a broad range of circumstances may cause a transaction to be recommended," and this determination does not depend [on whether the transaction is] 'solicited' or 'unsolicited.' In particular, a transaction will be considered recommended when the member. . . *brings a specific security to the attention of the customer* through any means . . . including, but not limited to, direct telephone communication, the delivery of promotional material through the mail, or the transmission of electronic messages. NASD Notice To Members 96-60, "Clarification of Members' Suitability Responsibilities under NASD Rules . . ." (Sept. 1996)(*emphasis added*).

The Commission has not defined what constitutes a recommendation, although it has stated that a "recommendation may be found to have been implied even where one has not been made expressly." National Committee of Discount Brokers, SEC No-Action Letter (May 27, 1980). The Commission has also suggested that a broker-dealer has not made a recommendation when it acts solely as an order taker or when it makes general advertisements. Exchange Act Rel. No. 30,608 (April 20, 1992), 57 Fed. Reg. 18,004 (1992).

about other security holdings, financial situation and needs. This requirement is referred to as customer-specific suitability. This rule does not merely prohibit a registered representative from making an unsuitable recommendation. It imposes an affirmative obligation on registered representatives to make certain determinations before making a recommendation. The registered representative must, prior to executing a recommended transaction to a non-institutional customer, make reasonable efforts to obtain information concerning: (1) the customer's financial status; (2) the customer's tax status; (3) the customer's investment objectives; and (4) any other information the registered representative considers reasonable in making a recommendation to its customer. This requirement imposes a duty of inquiry on registered representatives to obtain certain financial information from customers and keep such information current.⁴⁸

In addition to customer-specific suitability, the rule requires registered representatives to have an "adequate and reasonable basis" for any recommendation made. This requirement is referred to as reasonable basis suitability.⁴⁹ Reasonable basis suitability relates to the particular investment, rather than to any particular customer.⁵⁰ In other words, a registered representative could violate the NASD's suitability rule if he fails so fundamentally to comprehend the consequences of his own investment recommendation that such investment is unsuitable for any investor, regardless of his wealth, willingness to bear risk, age, or other individual characteristics.⁵¹

Other SROs have similar rules which are grounded in concepts of professionalism, fair dealing, and just and equitable principles of trade. Although originally intended to protect the exchanges and their members from uncreditworthy customers, these rules have been interpreted as customer protection and suitability rules. For example, New York Stock Exchange ("NYSE") Rule 405,⁵² or the "Know Your Customer Rule," requires members to use due diligence to learn the essential facts relative to every customer, every order, every cash or margin account accepted or carried by the member, and every person holding a power of attorney over any account.

⁴⁸ NASD Conduct Rule 2310(b), NASD Manual (CCH) (1999). *See also*, Gerald M. Greenberg, 40 S.E.C. 133 (1960) (holding in an NASD suitability case that a broker cannot avoid the duty to make suitable recommendations simply by entirely avoiding knowledge of the customer's financial situation); Exchange Act Release No. 33,869 (April 7, 1994) 59 Fed. Reg. 17,632 (1994) (approving amendments to MSRB rule G-19 relating to suitability of municipal securities recommendations and stating that the rule includes a duty of inquiry).

⁴⁹ F.J. Kaufman and Co., 50 S.E.C. 164 (1989).

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² NYSE Rule 405(1), 2 NYSE GUIDE (CCH) 2405, at 3696 (Aug. 1994).

2. The Shingle Theory

In the 1963 Special Study of the Securities Markets,⁵³ the Commission specifically identified suitability as a distinct doctrine giving rise to a “legal obligation” under the federal antifraud provisions, and an “ethical duty” under SRO rules.⁵⁴ The shingle theory arises from common law and provides that by virtue of “hanging out its shingle” as a securities professional, a broker-dealer makes an implied representation to its customers that it will deal with them fairly and according to the standards of the profession.⁵⁵ As part of this obligation of fair dealing, broker-dealers must make a customer-specific suitability determination. In addition, the shingle theory requires that broker-dealers have a reasonable basis for believing that the particular security being recommended is appropriate for any investor.⁵⁶ To have such a reasonable basis, a broker-dealer must have performed due diligence on the security to be in a position to recommend the security to a customer.⁵⁷

3. Options and Penny Stocks

Broker-dealers also must comply with specialized suitability rules when recommending certain kinds of securities, such as penny stocks and options.⁵⁸

4. SEC Antifraud Actions

The Commission’s statutory authority to bring suitability claims comes under the general antifraud provisions -- Exchange Act Sections 10(b)⁵⁹ and 15(c)⁶⁰ and Rules 10b-5⁶¹ and 15c1-2⁶² thereunder. To prove a violation, the Commission must establish

⁵³ H.R. Doc. 95, 88th Cong., 1st Sess. (1963).

⁵⁴ *Id.* at 238.

⁵⁵ In the Matter of Duker v. Duker, 6 S.E.C. 386 (1939); Charles Hughes & Co. v. SEC, 139 F.2d 434 (2d Cir. 1943), *cert. denied*, 321 U.S. 786 (1944).

⁵⁶ See Hanly v. SEC, 415 F.2d 589, 596 (2d Cir. 1969).

⁵⁷ *Id.*

⁵⁸ See Exchange Act Rule 15g-9, 17 C.F.R. 240.15g-9, (penny stocks); Rule 9.9, 2 Chicago Bd. Options Ex. (CCH) 2309 (1998) (options rule); NASD Conduct Rule 2860(b)(19)(A); NASD Rules of Fair Practice, Art. III, section II, Policy of the Board of Governors, NASD MANUAL (CCH) P2152 (statement of policy concerning recommendations of speculative low-priced securities and recommendations of or accepting orders for options).

⁵⁹ 15 U.S.C. § 78j(b) (1999).

⁶⁰ 15 U.S.C. § 78o(c)(1) (1999).

⁶¹ 17 C.F.R. 240.10b-5.

that the conduct satisfies the required elements of fraud under the federal securities laws,⁶³ including scienter. As a result, the Commission must meet the burden of proving a fraud case while the SROs may bring suitability claims for violations of their own conduct rules.

B. Suitability Issues in the On-Line Context

Some industry participants question where the suitability obligation starts and ends in the on-line context. On-line firms provide a wide range of services and information to their customers. At one end of the continuum, firms provide pure order entry services. At the other end of the continuum, firms provide order entry plus all types of specialized services, including particularized recommendations. Because the Internet permits a firm to disseminate securities-related information to its customers, the question becomes at what point does a firm merely “provide” information to its customer and at what point does it make a recommendation to its customer? As discussed in the Trends section of this Report, the advent of data mining capabilities makes it more difficult to draw a bright line between informing and recommending.⁶⁴

In a white paper prepared for the NASD and provided to the SEC,⁶⁵ Charles Schwab & Co. argues that impersonal information provided generally to customers does not constitute a recommendation and does not trigger a suitability obligation. The Schwab paper advocates treating general impersonal research or generalized sales and marketing materials as a solicitation -- subject only to NASD Rule 2210.⁶⁶ The paper does not, however, answer the question when that information becomes a “personalized” recommendation.

These developments raise a number of questions about what suitability obligations an on-line firm has to its customers. For example:

- Under what circumstances does it make sense for a firm to have suitability obligations for its customers trading on-line?

⁶² 17 C.F.R. 240.15c1-2.

⁶³ For a more complete discussion of Section 10(b) and the requisite elements needed to establish a case under this section, see *infra* note 220, and accompanying text.

⁶⁴ For a more complete discussion of data mining, see Trends section, at page 1.

⁶⁵ Charles Schwab & Co., Inc., *Suitability Obligations in Online Investing*, January 29, 1999, *updated and revised*, October 27, 1999.

⁶⁶ This rule provides that “[a]ll member communications with the public shall be based on principles of fair dealing and good faith and should provide a sound basis for evaluating the facts in regard to any particular security or securities or type of security, industry discussed, or service offered.” NASD Conduct Rule 2210(a)-(d), NASD Manual (CCH) (1999) (rule entitled “Communications with the Public”).

- When does a firm make a recommendation on-line? When does a firm using technology, particularly push and pull technology, cross the line from providing information to making a recommendation? When does a firm's actions directing information on-line -- through an e-mail or by forwarding a press release -- essentially saying "look at this" or "consider this," constitute a recommendation saying "buy this"?
- Does focusing on the degree of personalization assist in determining whether there is a recommendation? Can firms segment their customers and send them information without that information being considered a recommendation?
- Fundamentally, do investor expectations play a role in determining what is a recommendation?

The roundtable discussions provided insight into the industry's perspectives on these and other issues involving suitability obligations on-line.

C. Roundtable Participants' Views

Participants generally agreed that at least some existing suitability obligations applied in the on-line context. For example, all but one participant who contributed to the suitability discussion agreed that the reasonable basis suitability obligation -- that a security must be suitable for *someone* -- applies on-line and off-line. Participants also agreed when suitability obligations did not attach: when firms provide pure order entry and execution services.

Roundtable participants did not dispute that on-line brokers could make the same customer suitability determination as off-line firms. In fact, two on-line firms participants said that technology actually enables a broker to do a better job of assessing customer suitability.⁶⁷ Actually making the suitability determination on-line is not a problem, according to these participants.⁶⁸ They questioned whether triggering a suitability obligation on a recommendation still made sense in today's markets.

Several general observations about on-line investors that broker-dealer roundtable participants made may explain why some of them believed that traditional notions of suitability do not apply on-line. First, participants believed that on-line customers do not

⁶⁷ One participant spoke about going beyond existing suitability requirements qualifying an investor for participation in a certain type of IPO offering and the other about an investor's participation in a private placement.

⁶⁸ According to a recent press report, E*Trade Securities is currently looking for a vendor to supply technology to review suitability of on-line trades. As the article noted, "E*Trade believes on-line brokerages will have to offer advice to remain competitive and to meet customer demand, which could bring suitability responsibilities...." Margaret McKegney, "E*Trade Seeks Technology to Review Trade Suitability," FIN. NETNEWS, Nov. 9, 1999.

want registered representatives interfering with their trading. Second, they believed that customers like to trade on-line partly because they can avoid the traditional registered representative - client relationship in which the representative is compensated on the size and frequency of transactions. Third, participants observed that investors think it is cheaper to trade on-line without a registered representative. Finally, participants asserted that customers who trade without a registered representative's intervention should not expect "protection" from inappropriate investment decisions.

There would appear to be no customer specific suitability obligation when a customer pulls information from a firm's website, makes his or her own investment decision and places an order through an on-line account. That may be today's customer, but what about tomorrow's customer?

According to some of the industry participants, and industry representatives generally, in the future, on-line brokerage will move away from pure execution at a cheap price to the rebundling of advice with execution.⁶⁹ As part of this move, many firms are developing or planning to develop products that provide personalized information on-line. Some of these products exist today.⁷⁰ For example, on-line asset allocation systems ask a customer about his financial objectives and then provide a number of potential investments that the customer may want to consider adding to the portfolio.⁷¹

Investors can customize information they want directed to them. Some observers call this feature "automated pull." Even more subtle from the customer's perspective, the Amazon.com type of push technology allows firms to collect information about its customers and direct personally relevant investment information to that customer.⁷² In

⁶⁹ *Id.*

⁷⁰ See e.g., Ivy Schmerken, *J.C. Bradford Invests in Internet Technology*, WALL ST. & TECHNOLOGY, at 64 (Sept. 1999) (firm creating technology tools for its investment advisers to provide investment advice); Ivy Schmerken & Kerry Massaro, *Financial Planning Tools, Web Sightings*, (identifies sites with "do-it-yourself" financial planning, investment tools and calculators); Julio Bucatinsky, *Black Box Developer Generates Buy/Sell Signals on the Internet*, WALL ST. & TECHNOLOGY, at 48 (Feb. 1999)(describes Indigo Online service that provides access to trading algorithms traders may use to update portfolios: "Indigo tells you exactly which stock or funds to buy or sell."); Menduno, *Retirement Plans Go Online*, *supra* note 40 (describes on-line 401(k) custom advice systems, including Financial Engines); Discover Brokerage <<http://www.discoverbrokerage.com/cgi.bin/Help/investorRsrc>> (describes LIMresearch.com Ideas historic analysis modeling product) (visited Oct. 1, 1999).

⁷¹ *See id.*

⁷² Amazon.com, an on-line bookseller, uses collaborative filtering to compare customer' purchase history or clickstream with other buyers to suggest items that may be of interest to a particular customer.

that scenario, the information pushed could be issuer-specific research reports, e-mails about investment opportunities or press releases about a particular company.⁷³

Most participants opined that making available proprietary research on a firm's website would not be a recommendation. Some participants also questioned when bringing a security to the attention of a customer should be considered a recommendation. Other participants contended that it all depended on how the information was disseminated. Research that an investor can pull from a firm's website likely requires a different analysis than e-mails or other communications targeted to certain customers about developments in a particular company in which customers may want to invest.

Part of the roundtable discussions focused on identifying and managing customer expectations. While the firms represented agreed that a firm could not use disclosure to disclaim liability under the federal securities laws, they discussed how they could use it to inform customers. Another participant suggested that the benchmark for suitability should be whether a customer reasonably believed that information sent to him took into account his "personal circumstances."

Participants also discussed what information firms do *not* disseminate to investors due to their uncertainty about the firms' suitability obligations. Attorney participants indicated concerns about their clients sending e-mails or group e-mails and posting research on websites. One firm participant was interested in knowing whether the firm could send its "tech stock" customers information about other tech stocks and whether the firm could include research reports or summaries in its newsletter. One participant, whose firm featured an asset allocation system, indicated that it did not retain customer data input into the calculator because the firm was not sure what its suitability obligation would be if a customer placed an unsolicited trade that was inconsistent with his or her stated objective. Finally, another firm participant stated that his firm had used data mining to collect information but had not yet put the information to use because the firm had questions about what it could do with the data.

Many of the participants sought reassurances that the Commission and SROs were approaching suitability in a way that provided sufficient flexibility to accommodate the rapid changes in the technology used in on-line trading. Some participants indicated that they preferred no changes in the area of suitability regulation at this time. Most of the participants did, however, indicate that some guidance would provide a useful framework for determining what activities associated with on-line trading did or did not trigger suitability obligations -- particularly given the new product development underway.

D. Conclusions and Recommendations

⁷³ See e.g., McMillan, *Data Mining Goes On-Line*, *supra* note 31 (firms using customer profiling to give customers what they want -- "on-line brokerages hope they can learn what you want and give it to you, perhaps before you even ask for it.")

1. Conclusions

Most of the participants believed that the general policy goals behind suitability continued to make sense on-line. They also noted the Commission's and the SROs' challenge moving forward will be how to apply this obligation to the on-line trading environment.

Resolving this issue will require several considerations. First, how should the regulators interpret "recommendation" on-line? Push and pull technology make this a difficult question to answer. Regulators need to consider how defining suitability on-line may impact information flow and access. Although some would argue the Internet gives investors (and consumers generally) too much information, investors may not want this information restricted. Second, it would be helpful to better understand: (1) what types of products are on-line firms developing or considering, and (2) what do on-line investors really need and want in terms of information delivery or recommendations? Third, when is the appropriate time for regulators to provide additional guidance on what on-line activities trigger suitability obligations?

2. Recommendations

- The Commission should consider a candid dialogue with the industry about customer relationship management product development and data mining. The Commission should encourage the industry to provide information on: (1) how the products would work, (2) what types of information would be pushed or pulled, and (3) whether customers would recognize that the firm had specifically provided them with customized information. This discussion should yield more insight on what is information or what is a recommendation.
- Alternatively, the Commission should consider incorporating into any future on-line firm examination program a review of what services firms provide to their customers based on information derived from data mining.
- The Commission should consider clarifying how suitability principles apply to certain on-line circumstances and situations. As a starting point, the Commission should work in consultation with the SROs to consider issues raised by the following scenarios and relevant analysis:

SUITABILITY HYPOTHETICALS

Whether a broker-dealer has made a recommendation depends on the facts and circumstances. For example, if fraud were involved in the following hypotheticals, the analysis would be different. The Commission and SROs should consider using the following hypotheticals as a basis for providing further clarification or guidance.

1. AN ON-LINE BROKER-DEALER PROVIDES ONLY ORDER EXECUTION SERVICES TO ITS CUSTOMERS.

This activity should not require a customer-specific suitability review, assuming that the firm acts purely as an order taker. This scenario is substantially similar to when the investor contacts a discount firm by telephone to execute a particular trade. The only difference is the *medium* by which the order is communicated to the firm. A firm's suitability obligation does not depend on whether a trade is executed on-line or otherwise.⁷⁴

2. AN ON-LINE BROKER-DEALER PROVIDES ORDER EXECUTION SERVICES AND ALLOWS ITS CUSTOMERS TO PULL INFORMATION FROM ITS "VIRTUAL LIBRARY" (WHICH CONTAINS RESEARCH REPORTS, MARKET COMMENTARY, AND NEWS). THIS VIRTUAL LIBRARY APPEARS THE SAME TO EVERY CUSTOMER.

This type of activity should not trigger customer-specific suitability requirements. However, the broader reasonable basis suitability standard would apply in this context. In other words, the firm must have a reasonable basis for believing the research reports and market commentary are plausible and that the investments or strategies discussed therein may be appropriate for at least some of its customers.⁷⁵

3. IN ADDITION TO THE SERVICES PROVIDED IN SCENARIO 2, THE CUSTOMER HAS THE ABILITY TO PERSONALIZE WHAT SHE SEES EACH TIME SHE GOES TO THE ON-LINE FIRM'S WEBSITE. THE CUSTOMER'S PERSONALIZED WEBPAGE TRACKS QUOTES IN SPECIFIED STOCKS, AND PROVIDES ALERTS ABOUT RESEARCH IN SUCH STOCKS OR THE SECTOR THEY ARE IN. THE CUSTOMER ALSO IDENTIFIES HERSELF AS A PARTICULAR TYPE OF INVESTOR (*E.G.*, CONSERVATIVE, GROWTH, SPECULATIVE).

Resolving this scenario requires a more difficult determination. On the one hand, the customer has personalized the website, with no intervention from the firm. If the

⁷⁴ See NASD Notice to Members 99-11, n.3 (Jan. 26, 1999).

⁷⁵ See *Kaufman*, *supra* note 49.

investor had not identified herself as a particular type of investor, no customer-specific suitability requirement should be triggered by this scenario. If, however, the customer does identify herself as a particular type of investor, the firm is on notice that the customer is following stocks that may be inappropriate for her if she has indicated a very low risk tolerance. This difference between how the investor identifies herself and how she customizes her web page may trigger a firm's suitability obligation. As a good business practice, the firm would probably want to advise the customer (in writing and prior to executing any transactions) that risky stocks are not consistent with a conservative investment strategy.

4. THE ON-LINE BROKER-DEALER CLASSIFIES ITS CUSTOMERS INTO DIFFERENT CATEGORIES BASED ON FACTORS SUCH AS ACCOUNT BALANCE, SECURITIES HOLDINGS, AND FREQUENCY OF TRADING ACTIVITY. THE FIRM DIRECTS DIFFERENT INFORMATION TO CUSTOMERS IN EACH CATEGORY.

This scenario may require more facts to determine whether the firm has a suitability obligation. One relevant factor is how finely the firm segments investors and personalizes the information that they see. If a firm makes individualized recommendations to the customer based on information it has collected about that customer, the firm would have a customer-specific suitability obligation. Firms would most likely not have suitability obligations if customers select certain investment categories and request to receive information appropriate for that category.

5. IN ADDITION TO THE SERVICES PROVIDED IN SCENARIO 2, THE ON-LINE BROKER-DEALER PUSHES SELECTED INFORMATION TO THE CUSTOMER BASED ON OBSERVATIONS THAT THE FIRM HAS MADE OF THE USER WHILE SHE WAS ON-LINE. FOR EXAMPLE, AN ON-LINE BROKER-DEALER SEES THAT SHE TENDS TO PURCHASE SHARES OF BLUE-CHIP COMPANIES AFTER THEIR STOCK PRICES HAVE FALLEN AND SENDS AN E-MAIL TO HER WHEN THE STOCK PRICE OF A SIMILAR BLUE-CHIP COMPANY HAS FALLEN.

At this point on the continuum, the firm now has a customer-specific suitability obligation. While the process may be somewhat mechanized, the firm is now tailoring particular securities to her.

6. IN ADDITION TO THE SERVICES PROVIDED IN SCENARIO 2, THE ON-LINE BROKER-DEALER HELPS THE CUSTOMER MANAGE HER PORTFOLIO ON-LINE, EITHER BY PROVIDING BENCHMARKS THAT HER PORTFOLIO SHOULD MEET OR BY ADVISING ON THE CUSTOMERS' ASSET ALLOCATION FOR HER PORTFOLIO.

An "asset allocation calculator," where an investor enters basic information and the calculator provides a suggested asset mix (68% in stocks, 20% in bonds, and 12% in cash,

for example), is usually akin to a generalized recommendation and in those situations the firm should not have to make a customer-specific suitability determination. As always, the reasonable basis suitability standard would apply.

Now let us assume that after entering all of her investment assets into the “asset allocation calculator,” she is alerted that she has too much common stock in her portfolio and should consider selling her blue-chip company shares and buying a municipality’s industrial development bonds. This would be viewed as a personalized recommendation regarding specific securities, triggering a customer-specific suitability obligation.

7. A FULL-SERVICE BROKER-DEALER ALLOWS CUSTOMERS TO ENTER ORDERS ON-LINE OR THROUGH A REGISTERED REPRESENTATIVE. THE REGISTERED REPRESENTATIVE RECOMMENDS A PURCHASE IN A SPECIFIC STOCK TO A CUSTOMER OVER THE TELEPHONE. THE CUSTOMER THEN ENTERS THE ORDER ON-LINE IN THE EVENING.

In this scenario, the firm has a customer-specific suitability obligation. The registered representative made a personalized recommendation to a customer. The more difficult issue for a firm will be how to monitor a broker’s off-line recommendations to its customers for suitability when the customer enters the order on-line.

III. BEST EXECUTION

A. Background

The duty of best execution requires a broker-dealer to seek the most advantageous terms reasonably available under the circumstances for a customer's transaction. The duty originally derived from agency law principles and fiduciary obligations.⁷⁶ Subsequently, it was incorporated into SRO rules.⁷⁷ In addition, judicial and Commission decisions have established that a broker-dealer's failure to perform its best execution obligation may form the basis for an action under the antifraud provisions of the federal securities laws.⁷⁸

The Commission has not promulgated a separate best execution rule or explicitly defined best execution. Rather, how the broker-dealer satisfies its duty continues to evolve with changes in technology and market structure. Traditionally, price has been the predominant factor in determining whether a broker-dealer has satisfied its best execution obligations.⁷⁹ The Commission has stated that broker-dealers also should consider at least six additional factors: (1) the size of the order; (2) the speed of execution available on competing markets; (3) the trading characteristics of the security; (4) the availability of

⁷⁶ The duty of best execution derives from the common law agency duty of loyalty, which obligates an agent to act exclusively in the principal's best interest. Restatement 2d Agency Sec. 387 (1958). When a broker-dealer acts as agent on behalf of a customer in a transaction, the agent is under a duty to exercise reasonable care to obtain the most advantageous terms for a customer. Restatement 2d Agency Sec. 424 (1958). The duty applies whether a broker-dealer is acting as agent or principal. See E.F. Hutton & Co., Exchange Act Release No. 25,887, 49 S.E.C. 829, 832 (1988); *Opper v. Hancock*, 250 F. Supp. 688, 673-74 (S.D.N.Y.), *aff'd* 367 F.2d 157 (2d Cir. 1966); Rule 2320(f), NASD MANUAL (CCH) (1999).

For a detailed discussion on the development of the duty of best execution, see Exchange Act Release No. 37,619A (Sept. 6, 1996), 61 Fed. Reg. 48,290 (1996) [hereinafter *Order Handling Rules Adopting Release*] at 162-3; SEC, Division of Market Regulation, MARKET 2000: AN EXAMINATION OF CURRENT EQUITY MARKET DEVELOPMENTS [hereinafter *Market 2000*] (Jan. 1994) at Study V, V-1, V-2 and sources cited therein.

⁷⁷ See, e.g., NASD MANUAL (CCH), Rule 2320; NYSE CONSTITUTION AND RULES, Rule 123.41.

⁷⁸ See *Market 2000*, *supra* note 76 and cases cited at Study V, V-17, nn. 8-10. See also *Newton v. Merrill, Lynch, Pierce, Fenner & Smith, Inc.*, 135 F.3d 266, 270-71 (3d Cir. 1998) (*en banc*) (liability may exist under Section 10(b) for firms' violations of duty of best execution).

⁷⁹ The Commission has stated that "[i]n its purest form, best execution can be thought of as executing a customer's order so that the customer's total cost or proceeds are the most favorable under the circumstances." Exchange Act Release No. 34,902 (Oct. 27, 1994), 59 Fed. Reg. 55,006 (1994) [hereinafter *Payment for Order Flow Adopting Release*]. The Third Circuit went even further in *Newton* by stating "the broker-dealer is expected to use reasonable efforts to maximize the economic benefit to the client in each transaction." *Newton*, *supra* note 78, at 270. However, the Commission never has stated that a broker-dealer is bound exclusively by price considerations in satisfying its best execution obligations. See *Order Handling Rules Adopting Release*, *supra* note 76.

accurate information comparing markets and the technology to process such data; (5) the availability of access to competing markets; and (6) the cost of such access.⁸⁰

One of the Commission's main concerns regarding best execution has been that internalization and inducements for order flow could cause automated routing decisions to be made for reasons other than a customer's best interest. The Commission also has struggled over the years with how to reconcile its policy goal of having broker-dealers achieve best execution on an individualized basis with the practical reality of firms automatically routing aggregated retail order flow to a particular market center.

Attempting to alleviate this concern, in 1978 the Commission called for the development of a neutral message switch to facilitate order-by-order routing by broker-dealers to the market with the best price.⁸¹ Commenters opposed the proposal, believing that the order routing decision should be made by the broker-dealer responsible for executing an order.⁸² A year later, the Commission suspended its consideration of this mechanism indefinitely, citing both the practical limitations in the trading environment at the time and progress in enhancing intermarket linkages.⁸³ At that time, the Commission reasserted that a broker-dealer routing retail order flow on an aggregate basis to a single market must make at least periodic assessments of the quality of competing markets to assure that it was taking reasonable steps to seek best execution of customer orders.⁸⁴

Subsequently, the Commission has found that internalization and inducements for order flow could be reconciled with the broker-dealer's duty of best execution as long as the broker-dealer conducts a "regular and rigorous" evaluation of the execution quality of the different markets trading a security.⁸⁵

⁸⁰ See, e.g., SEC, Second Report on Bank Securities Activities, at 97-98, n.233, as reprinted in H.R. Rep. No. 145, 95 Cong., 1st Sess. 233 (Comm. Print 1977).

⁸¹ See Exchange Act Release No. 14,416 (Jan. 26, 1978), 43 Fed. Reg. 4,354 (1978).

⁸² Commenters believed that a neutral message switch would eliminate broker discretion, differences in execution services, and competitive opportunities created by such differences. See Exchange Act Release No. 15,671 (Mar. 22, 1979), 44 Fed. Reg. 20,360 (1979).

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ See, e.g., Exchange Act Release No. 15,926 (June 6, 1979), 44 Fed. Reg. 36,912 (1979); Exchange Act Release No. 16,590 (Feb. 19, 1980), 45 Fed. Reg. 12,391 (1980); Exchange Act Release No. 17,583 (Feb. 27, 1981), 46 Fed. Reg. 15,713 (1981); Exchange Act Release No. 26,870 (May 26, 1989), 54 Fed. Reg. 23,963 (1989); and *Payment for Order Flow Adopting Release*, *supra* note 79.

The Commission's most detailed pronouncement regarding a broker-dealer's best execution obligations came in the 1996 Order Handling Rules Adopting Release.⁸⁶ In this release, the Commission emphasized the importance of price improvement opportunities in determining best execution. Specifically, the Commission stated that broker-dealers must modify their best execution evaluations to consider price improvement opportunities that become "reasonably available." Perhaps most significantly, the Commission stated that internalizing or routing order flow for execution at the national best bid or offer ("NBBO") would not necessarily satisfy a broker-dealer's duty of best execution for retail-sized orders in listed and over-the-counter ("OTC") securities.

Accordingly, the Commission stated that a broker-dealer's regular and rigorous evaluation should include the extent to which directed order flow would be afforded better terms if executed in a market offering price improvement opportunities.⁸⁷ As part of that evaluation, a broker-dealer must take into account material differences that exist among the price improvement opportunities offered in different markets.⁸⁸ In addition, the broker-dealer must consider whether different markets are more suitable for certain types of orders or particular securities.⁸⁹

The Commission reiterated this point in its 1997 Report on the Practice of Preferencing.⁹⁰ In concluding that preferencing arrangements were not necessarily inconsistent with a broker-dealer's best execution obligations, the Commission again stressed that firms automatically routing orders to a particular exchange must regularly and rigorously evaluate execution quality in the various markets trading the security.

B. Best Execution Issues Raised in the On-Line Context

The markets have changed significantly since 1997, due in large part to technology and the Order Handling Rules. Technology has made on-line brokerage increasingly popular, expanding the rate of individual investors' participation in the markets. The Customer Limit Order Display Rule ("Display Rule"), adopted as part of the Order

⁸⁶ See *Order Handling Rules Adopting Release*, *supra* note 76.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ The Commission recognized that preferencing arrangements existed because of the need for broker-dealers to automate the routing of their retail order flow, given the lack of a practical means for firms to route on an order-by-order basis. SEC, REPORT ON THE PRACTICE OF PREFERENCING PURSUANT TO SECTION 510(C) OF THE NATIONAL SECURITIES MARKETS IMPROVEMENT ACT OF 1996 [hereinafter *Preferencing Study*] (Apr. 11, 1997).

Handling Rules, also has led to more direct individual investor participation.⁹¹ Generally, under the Display Rule a customer order that improves the NBBO must be reflected in the quote. The Display Rule and the adoption of sixteenths have dramatically narrowed spreads and affected the quoted depth at the NBBO.⁹² The Order Handling Rules and technological advancements also have increased significantly the percentage of trading volume handled by alternative trading systems (“ATs”), particularly in the Nasdaq market.⁹³ Taken together, these developments have greatly affected trading patterns and market participants’ behavior.

These developments raise a number of questions, including:

- Do recent market developments affect how a broker-dealer carries out its regular and rigorous evaluation of execution quality?
- Looking forward, what impact will decimalization have on broker-dealers attempting to achieve best execution for their customers?
- Do most on-line investors have particular expectations as to what constitutes best execution?

Another more current development affecting the best execution analysis involves technological advances on-line brokerages can now offer their customers -- services previously available only to market professionals. Already, several smaller on-line firms⁹⁴ offer active traders the ability to direct orders in Nasdaq stocks to the market center of

⁹¹ For a discussion of the synergy between on-line brokerage and the Display Rule, see Laura S. Unger, *Speech by SEC Commissioner: Regulating on Internet Time*, (Sept. 22, 1999) <<http://www.sec.gov/news/speeches/spch298.htm>>.

⁹² See, e.g., Michael J. Barclay et al., *The Effects of Market Reform on the Trading Costs and Depths of Nasdaq Stocks*, 54 J. OF FIN. 1 (Feb. 1999); MICHAEL A. GOLDSTEIN & KENNETH A. KAVAJECZ, EIGHTHS, SIXTEENTHS AND MARKET DEPTH: CHANGES IN TICK SIZE AND LIQUIDITY PROVISION ON THE NYSE (NYSE Working Paper No. 98-01, 1998).

⁹³ One recent report states that electronic communications systems (“ECNs”), a subcategory of ATs, now execute approximately 30 percent of share volume in Nasdaq stocks and projects that this number may increase to 50 percent by 2001. OCTAVIO MARENZI, MERIDIEN RESEARCH, ECNS -- WHO WILL THE WINNERS BE? (Aug. 31, 1999) (summary available at <<http://www.meridien-research.com/search/SearchList.html>>).

⁹⁴ These firms are ‘smaller’ on-line firms measured in terms of on-line customer accounts.

their choice.⁹⁵ The customer can direct orders through a connection to the on-line broker's order routing system.⁹⁶

Broker-dealers also have developed sophisticated software that attempts to reduce best execution to an algorithm. These algorithms dictate customer order routing on an order-by-order basis.⁹⁷ Several on-line firms are marketing order-by-order routing to active traders.⁹⁸ The active trading segment is a very lucrative one for on-line brokerages.⁹⁹ While the largest on-line firms do not yet provide direct access or order-by-order routing capabilities,¹⁰⁰ several do compete for the active trader segment by offering features such as Nasdaq Level II quotes¹⁰¹ and faster connections through dedicated trading websites.¹⁰²

⁹⁵ Among the on-line firms currently offering this service are A.B. Watley, [onlinetradinginc.com](http://www.onlinetradinginc.com), and TradeCast. See <http://www.abwatley.com>; <http://www.onlinetrading.com>; and <http://www.tradecast.com> (all visited Oct. 18, 1999).

⁹⁶ Generally, these customers have direct access to one or more ECNs, to other ECNs and market makers through Nasdaq's SelectNet service, and access to Nasdaq's Small Order Execution System ("SOES"). For listed stocks, these firms may offer customers direct access to the NYSE's and Amex's order entry systems (DOT and PERS), but do not offer access, direct or otherwise, to the regional exchanges or third market makers trading these stocks.

⁹⁷ An order-by-order routing algorithm may take into account factors such as currently displayed prices and sizes, as well as markets' past performance in filling orders and market makers' automatic execution guarantees. The broker's order management system may monitor the results of the algorithm, and reapply it if any part of the order remains unexecuted after a certain time period.

⁹⁸ Among the on-line firms offering this service are CyberBroker, Timber Hill, and Tradescape. See <http://www.cyberbroker.com>; <http://www.timberhill.com>; and <http://www.tradescape.com> (all visited Oct. 18, 1999). These firms do not offer order-by-order routing capabilities in listed stocks.

⁹⁹ See, e.g., Rebecca Buckman, *On-line Brokers, Day-Trade Firms Start to Encroach on Each Other's Cyberturf*, WALL ST. J., Oct. 6, 1999, at C1; David Barboza, *Why Big Firms Are Courting Day Traders*, N.Y. TIMES, Aug. 13, 1999, at C1.

¹⁰⁰ However, one on-line broker currently routes its customers' limit orders in Nasdaq stocks to an ECN. Datek Online routes its customers' non-marketable limit orders to the Island ECN for display and possible execution, and its customers' marketable limit orders are routed through the Island book for a possible match before being routed out to a market maker. In addition, E*Trade intends to allow customers to route orders to the Archipelago ECN. See Walter Hamilton, *Individuals May Soon Get a Say in Order Handling*, L.A. TIMES, May 16, 1999, at C14.

¹⁰¹ Access to Nasdaq Level II quotes allows the user to view bid and ask prices from various market makers and ECNs but does not allow the user to place quotes or enter orders.

¹⁰² See, e.g., http://www.gomez.com/features/article.cfm?topcat_id=0&col=11&id=3300 (discussing DLJdirect MarketSpeed 3.0 software); <https://trading.etrade.com/cgi-bin/gx.cgi/appogic+ActiveTrader> (describing Power E*Trade services); <http://personal400.fidelity.com/accounts/activetrader> (describing Powerstreet Pro workstation);

If the trend of commoditizing order routing technologies continues, on-line brokerages will almost certainly adopt these new technologies for use by the average customer. How will these technologies impact the duty of best execution? For example:

- If an on-line firm facilitates its customers' ability to route orders to the market of their choice, does this alter the on-line firm's best execution obligation? If so, what, if any, residual best execution obligation would the on-line firm retain? Would the answer depend upon whether (1) the firm provides access to all the markets trading a particular security, or (2) the quality of disclosure provided regarding execution quality on different market centers? In such instances, what information should on-line firms disclose to customers? How would the widespread application of such services impact the markets?
- If on-line firms adopt technology that permits them to perform order-by-order routing of customer orders, how will this technology affect, if at all, the way they fulfill their best execution obligations? Will the Commission have to evaluate such firms' order routing algorithms? How will the traditional best execution factors apply in such an environment? What is the potential impact of order-by-order routing on the markets?
- For on-line investors, what are the potential advantages and disadvantages of order-by-order routing compared to the current practice of aggregate routing of retail order flow?

C. Roundtable Participants' Views

On-line and full-service broker-dealer participants said they set up procedures to conduct their regular and rigorous evaluations of execution quality across market centers. Generally, each has an internal committee that meets at least quarterly to review the firm's order routing practices. The committee evaluates information generated internally, information supplied by various market centers, and, in some cases, reports from independent transaction evaluation services. Most firms indicated that they conducted more frequent execution quality reviews, beyond the committee's quarterly review.

Many participants expressed frustration with the process of obtaining and evaluating execution data from market centers. They stated that not all market centers made information available, particularly those markets to whom participants did not currently route order flow. Some participants believed, however, that competitive pressures were forcing market centers to provide data. Even where market centers did make data available, participants complained that not all of it was useful, or in a form that

Jack Reerink, *Schwab Offers Software that Speeds the Trade Process*, USA TODAY, Aug. 25, 1999, at 2B (discussing Schwab's Velocity software).

allowed for cross-market comparison. Again, some participants believed that competitive pressures were beginning to force markets to provide better quality data.

Partly because of the difficulties encountered in obtaining comparable data, a number of participants subscribed to execution quality reports issued by independent transaction evaluation services. They claimed that such reports had inherent flaws and, at best, painted an incomplete picture of market quality.

On-line brokerage participants expressed views on the factors entering into their regular and rigorous evaluations of execution quality. On-line brokerages uniformly believed that best execution needed to remain an evolving standard. In this regard, a number of on-line brokerages believed that the adoption of the Order Handling Rules and the move to sixteenths had reduced the amount of price improvement opportunities available, both in the markets as a whole and among market centers. Consequently, they contended that price improvement should have reduced importance in their best execution evaluations.¹⁰³

Many of the on-line brokerages believed that speed and certainty of execution should be given greater emphasis in their best execution evaluations.¹⁰⁴ In support of this view, on-line broker-dealers cited the increased volatility characteristic of today's markets and the difference in on-line customer expectations. Whether realistic or not -- on-line customers supposedly expect 'immediate' execution at the NBBO. On-line broker-dealers also suggested that a number of other factors should be considered by broker-dealers in routing order flow, including a market center's automatic execution policies, error rates, speed in posting customers' limit orders, and help desk responsiveness.

There were a variety of views on the potential conflict between a broker-dealer's best execution obligation and its receipt of payment for order flow. Some participants questioned whether a broker-dealer receiving payment for order flow could adequately carry out its fiduciary duties. Another participant expressed the view that payment for

¹⁰³ Two participants asserted that price improvement opportunities would continue to diminish as a result of decimal pricing. In addition, these participants raised questions as to how decimalization would impact firms' obligation to provide best execution.

¹⁰⁴ It is important to note that in executing a customer's order there is not always a tradeoff between ensuring speed of execution and acquiring price improvement. For example, some market centers use an algorithm to provide automatic price improvement to eligible orders (*e.g.*, when the spread between its bid and offer is wider than the minimum variation). In addition, under the "stopping stock" rules of various exchanges, a specialist may stop an incoming customer order against order(s) on the limit order book, guaranteeing the stopped order an execution at the prevailing market price while attempting to achieve price improvement. The Commission, however, has had mixed reactions about the practice of stopping stock, because any customer limit order with time priority that the incoming order is stopped against, is deprived of an immediate execution if the stopped order receives price improvement or perhaps any execution at all if the market subsequently moves away from the limit price. *See Preferencing Study, supra* note 90, at Section II.B.4.

order flow returned benefits to the customer in reduced commission rates and in other forms.¹⁰⁵ Still another participant believed that payment for order flow eventually will end because of the reduction in spreads that will result from next year's scheduled move to decimal pricing.

Participants had differing perspectives on how regulators conducted their oversight of firms' best execution evaluations. Some believed that regulators placed too much emphasis on particular factors. These participants believed that such an approach may unduly constrain their ability either to carry out their fiduciary duties or exercise appropriate business judgment. A few other participants complimented the Commission in particular for its renewed focus on best execution. They believed that by prompting on-line firms to seek modifications in market makers' practices (such as the handling of customer orders at the Nasdaq opening), the Commission's examination of on-line broker-dealers' best execution practices had demonstrated the tremendous influence on-line firms had over market makers' order handling practices.

The question whether on-line customers actually understood all of the costs involved in executing their orders provoked a lively discussion among the participants. Participants acknowledged that customers were keenly aware of differences in commission rates among on-line brokerages. However, many participants believed that on-line customers remained largely unaware of how differences in execution prices available among different market centers could affect customers' total transaction costs. In this regard, several participants cited examples where a customer might pay a low commission rate, but then receive an execution price inferior to that available on another market, yielding a higher overall total transaction cost.¹⁰⁶ These participants and others believed that customers needed to be better educated as to how orders are executed at different trading venues (*e.g.*, dealer vs. agency) and how this affects the customer's total transaction costs.¹⁰⁷

Some participants believed that customers gradually were becoming more aware of how on-line firms' order routing decisions affected the customers' total transaction costs. Several thought that competitive initiatives by the industry would increase customer

¹⁰⁵ For a concurring view, see R. BATTALIO, R. JENNINGS, & J. SELWAY III, PAYMENT FOR ORDER FLOW, TRADING COSTS, AND DEALER REVENUE FOR MARKET ORDERS AT KNIGHT SECURITIES, L.P. (NASD Working Paper No. 98-03, 1998).

¹⁰⁶ One participant cited internally-produced statistics finding that the volatility in Internet stocks meant that a one minute delay in execution could cost a retail investor in excess of \$1.00 per share. Moreover, this participant asserted that the average spread for Internet stocks is \$0.28, resulting in an annual "hidden cost" of approximately \$200 million for retail investors in this sector alone.

¹⁰⁷ At the same time, these participants generally stressed the importance to the markets of investor access to both agency services and proprietary capital.

awareness and understanding of these issues,¹⁰⁸ while others called upon the Commission to conduct its own educational efforts.

Other participants were less sanguine about the potential success of the industry or the Commission in educating investors about transaction costs. These participants believed that the typical customer would not understand distinctions among the markets or the intricacies of total execution costs. This customer, they hypothesized, only cared about receiving the NBBO, or, as one put it, “the price he saw on his computer screen.”¹⁰⁹

Participants expressed views on issues relating to customer choice and best execution. They raised this issue initially in the context of whether on-line customers should be able to choose speed of execution over opportunities for price improvement and, if so, what disclosures would enable customers to make an informed choice. One participant believed that, at a minimum, firms needed to inform customers about differences in market structure and provide information on opportunities for price improvement available in different market centers. This participant thought that the Commission should dictate the specifics of the disclosure. Another participant thought that customers needed to know the likelihood of trading between the spread.

Finally, participants expressed opinions on the advisability of allowing investors to route orders directly to the market of their choice. Several favored providing direct access. These participants pointed to the benefits on-line customers and the markets as a whole receive when broker-dealers have available a variety of order routing options.¹¹⁰ In addition, these participants believed that the industry will act responsibly in educating customers about best execution. Two other participants took the view that providing customers with direct access may be problematic, because customers might not appreciate the subtleties of achieving best execution on their own.

D. Conclusions and Recommendations

1. Conclusions

The seemingly ever-increasing number of execution venues and types of inducements for routing order flow makes the duty of best execution particularly important in today’s market structure. Requiring broker-dealers to carry out a regular and

¹⁰⁸ In this regard, one participant thought that the increased use of real-time market data might cause more customers to compare real-time quotes with the executions they receive, heightening customers’ interest in the issue. Still another participant thought that the shrinkage of margins in other areas will require firms to compete based on execution price.

¹⁰⁹ One on-line brokerage participant stated that the perception of most on-line customers is that speed of execution is equivalent to quality of execution.

¹¹⁰ One participant asserted that the Commission should ensure that firms are given the opportunity to provide a variety of order routing options.

rigorous evaluation of execution quality is vital to ensuring that firms meet their best execution obligations.

As the Commission has stated consistently over the years, best execution is not a static concept. It is a standard that continues to evolve with changes in technology and market structure. On-line firms may legitimately take into account speed of execution and certainty of execution in making their order routing decisions. As with any of the other factors, however, their relative importance in a broker-dealer's best execution analysis requires the broker-dealer to consider whether material differences exist among the markets trading the security.

The roundtable discussions and recent developments lead to the following observations and conclusions on best execution. First, in carrying out their regular and rigorous evaluations of execution quality, on-line and full-service brokerages are having some difficulties obtaining comparable information from the market centers trading a security. Second, execution quality appears to be an emerging competitive factor among broker-dealers and this competition depends on investors gaining an understanding of execution quality and transaction costs.

Third, order-by-order routing technologies that are developing may provide firms with new ways to meet their best execution obligations. Currently, most firms do not route retail orders on an individualized basis. Instead, decisions about order routing are made on an aggregate basis. Order-by-order routing technologies may provide firms with a way to route smaller, retail orders on a more individualized basis, but would not eliminate a broker's obligation to conduct a regular and rigorous evaluation of execution quality available at other markets. Unless done in a neutral fashion, these new order-by-order routing technologies would not by themselves eliminate the potential conflicts of interest (such as payment for order flow, internalization, and preferencing) inherent in the current practice of routing retail orders to a particular market center.

Finally, technology has developed that would allow an on-line customer to direct its order to the market of the customer's choice. These technologies appear to be particularly attractive to active traders. This technology is not currently in widespread use among on-line firms, but if it does become widespread, raises new issues about what type of information a customer would need to make his own order routing decisions.

2. Recommendations

- There have been significant changes in the markets over the last few years including the Display Rule, quoting in sixteenths, and increased individual participation. In this new environment, the industry has questioned whether factors such as speed and certainty of execution should receive greater emphasis in the best execution analysis. The Commission should encourage the industry to demonstrate the relative importance of these factors: specifically, they should identify what material distinctions in these

factors among markets would merit their consideration as determinative factors in making order routing decisions.

- The Commission should consider requiring market centers to make publicly available certain uniform information on various factors relating to best execution (such as price improvement rates and order turn-around times).
- The Commission should consider requiring that broker-dealers regularly provide their customers with plain English information about: (1) the execution quality available on different market centers; (2) the broker-dealer's order handling practices; and (3) the broker-dealer's receipt of inducements for routing order flow.¹¹¹
- As on-line brokerages offer their customers a choice of order routing options, the Commission should consider how this phenomenon might affect the duty of best execution. The Commission also should ensure that on-line firms sufficiently disclose to customers the consequences of directing their own order flow.
- The Commission should monitor and evaluate the potential consequences of technological advancements that are making order-by-order routing a practical alternative to the aggregate routing of retail order flow. The Commission's evaluation of these technologies should include an opportunity for industry and public input. Accordingly, the Commission's upcoming concept release on market fragmentation issues should raise questions on the potential consequences of these emerging technologies, including how they would affect marketplace centrality.
- As part of the Commission's focus on firms' compliance with their best execution obligations, the Commission should examine how broker-dealer's fulfill this obligation in light of new technologies available including: (1) algorithm-based order-by-order routing; and (2) customer direct access routing.

¹¹¹ The Commission already requires some disclosure on broker-dealers' order handling practices and receipt of payment for order flow. *See Payment for Order Flow Adopting Release, supra* note 79. When it adopted these requirements, the Commission proposed, but never acted on, additional disclosure requirements relating to broker-dealers' order handling practices and inducements for routing order flow. Exchange Act Release No. 34,903 (Oct. 27, 1994), 59 Fed. Reg. 55,014 (1994).

IV. MARKET DATA

A. Background

1. Current Regulatory Framework

Section 11A of the Exchange Act grants the Commission broad authority over information about securities quotations and transactions.¹¹² In particular, Section 11A requires the Commission to ensure that market participants and the public can obtain such information on terms that are “fair and reasonable” and “not unreasonably discriminatory.”¹¹³

In the 1970s, the Commission approved the Consolidated Tape Association and Consolidated Quote plans.¹¹⁴ Under these plans, the exchanges and the NASD formed the Consolidated Tape Association (“CTA”), which is the administrative and policy-making body for the consolidation and reporting of quotation and last sale information in exchange-listed stocks. The CTA participants provide their quotation and last sale information to the Securities Industry Automation Corporation (“SIAC”),¹¹⁵ which processes and consolidates this information on behalf of the CTA for distribution to vendors and others.

The administrators of Network A and Network B enter into contracts with both direct users of market data and with vendors (including broker-dealers) that provide consolidated market data to third-party subscribers. The CTA has adopted pricing schedules for market data, which are subject to review and approval by the Commission. The CTA participants divide market data revenues among themselves based upon each participant’s pro rata share of transactions in eligible stocks.

The NASD is the entity responsible for the consolidation of quotation and last sale information for securities quoted on Nasdaq. Like the CTA, the NASD enters into contracts with both direct users and vendors for the delivery of market data to third parties according to Commission-approved pricing schedules.

¹¹² 15 U.S.C. § 78k-1(c)(1) (1999).

¹¹³ 15 U.S.C. § 78k-1(c)(1)(C) and (D) (1999).

¹¹⁴ Exchange Act Release No. 10,787 (May 10, 1974), 39 Fed. Reg. 17,799 (1974)(order approving CTA plan); Exchange Act Release No. 15,009 (July 28, 1978), 43 Fed. Reg. 34,851 (1978)(order temporarily approving CQ plan); and Exchange Act Release No. 16,518 (Jan. 22, 1980), 45 Fed. Reg. 6,521 (1980)(order permanently approving CQ plan). For a more detailed account of the development of the consolidated tape and quotation systems, see *MARKET 2000*, *supra* note 76, at Appendix III.

¹¹⁵ The Commission regulates SIAC pursuant to its authority over exclusive securities information processors. See 15 U.S.C. § 78k-1(b) (1999). SIAC is jointly owned by the NYSE (two-thirds) and the American Stock Exchange, LLC (one-third).

2. CTA Network A and NASD Pricing Schedules¹¹⁶

Generally, the CTA and NASD vendor pricing schedules vary depending on three factors: (1) the mode of delivering market data; (2) whether the third party is a professional or non-professional user; and (3) whether the market data delivered is real-time or delayed. Currently, neither the CTA nor the NASD charge vendors for delivering delayed market data.¹¹⁷ Because this Report focuses on on-line brokerage and individual investors, the following discussion mainly describes the pricing scheme for firms' delivery of real-time market data to their customers.

In a traditional full-service brokerage relationship, a customer interested in a security visits or calls his or her registered representative, who looks up the security on a terminal (or interrogation device) and provides the customer with the current quoted price. Both the CTA and NASD impose a monthly per terminal charge on the registered representative's brokerage firm for an unlimited number of inquiries.¹¹⁸ Neither entity imposes any additional charge on the brokerage firm for using these devices to verbally provide real-time market data -- such as stock price quotes -- to its customers.

Contrary to their practice off-line, the CTA and NASD do impose fees for on-line firms' delivery of real-time market data to customers via the Internet. Currently, on-line firms have available two pricing options: (1) a flat monthly fee per customer for unlimited real-time market data queries; and (2) a fee for each customer real-time market data query. The Commission recently approved changes to the CTA Network A and NASD pricing schedules in October and June of this year, respectively.¹¹⁹

¹¹⁶ Consolidated data in listed stocks is transmitted over two networks: Network A for NYSE-listed stocks and Network B for Amex and regional exchange-listed stocks. The NYSE and Amex administrate Networks A and B, respectively. Each Network has its own pricing schedule. Because of its relative importance, this discussion is limited to a description of the Network A pricing schedule.

¹¹⁷ In this context, market data is considered "delayed" if it is at least 20 minutes old for exchange-listed stocks and 15 minutes old for Nasdaq NMS and SmallCap securities.

¹¹⁸ The CTA imposes a sliding scale charge depending on the number of terminals used by the brokerage firm (ranging from \$127.25 for one terminal to \$18.75 for 10,000 or more terminals). The NASD imposes a flat rate charge of \$20.00 per each terminal. It also charges an annual administrative fee to vendors and distributors (ranging from \$500.00 for one to 999 terminals to \$3,750 for 10,000 or more terminals).

¹¹⁹ Exchange Act Release No. 41,977 (Oct. 5, 1999), 64 Fed. Reg. 55,503 (1999) (order approving amendment to CTA Network A market data fee schedule); Exchange Act Release No. 41,499 (June 9, 1999), 64 Fed. Reg. 32,910 (1999) (order approving NASD market data fee schedule pilot program until Apr. 1, 2000). Previously, the CTA charged vendors a flat monthly fee of \$5.25 per customer or \$0.01 per customer inquiry. The \$0.01 fee pilot was a CTA pilot, not formally approved by the Commission. See Exchange Act Release No. 39,370 (Nov. 26, 1997), 62 Fed. Reg. 64,414 (1997). Under the CTA Network A's new schedule, monthly fees are set at \$1.00 for each of a vendor's first 250,000 customers, and \$0.50 for each additional customer. As

The general public also can access delayed and real-time market data over the Internet through non-broker-dealer financial websites. Individuals can receive free real-time market data from a number of Internet vendors by supplying certain personal information and entering into a click-through subscriber agreement with the vendor.¹²⁰ Apparently, these vendors intend to recoup the costs of assuming their subscribers' CTA and NASD fees by building sufficient site traffic to generate advertising revenues.¹²¹

B. Market Data Issues Raised in On-Line Brokerage

In pre-Internet days, the typical individual investor could access real-time market data only by calling or visiting his or her broker-dealer or chancing upon a ticker tape display. Newspaper stock tables displayed very delayed data in the form of the previous day's high, low and closing prices. The Internet's development as a communication channel enabling the broad public dissemination of real-time information, and the concomitant rise of on-line brokerage, has altered significantly individual investors' relationship and demand for market data.

On-line brokerages and non-broker financial websites place a wealth of delayed and real-time market data into the hands of investors.¹²² Even without opening an on-line brokerage account or paying a service fee to a non-broker financial website, an Internet user can access delayed market data. They can use this delayed data to track single stocks and sectors, price a real or hypothetical portfolio, and produce historical charts. As noted above, several financial websites also make real-time market data available at no charge to their subscribers.¹²³

for the per query options, a vendor is charged \$0.0075 for its customers' first 20 million queries, \$0.0050 for the next 20 million queries, and \$0.0025 for each additional query. The CTA Network A schedule includes an enterprise arrangement, under which a broker-dealer would pay no more than \$500,000 per month for delivering market data to their account holding customers. The NASD's new pilot schedule reduces on-line firms' monthly fees for customers' unlimited usage of market data from \$4.00 to \$2.00 per customer and per query fees from \$0.01 to \$0.0050.

¹²⁰ See, e.g., Freerealttime <<http://www.freerealttime.com>>; Market Guide <<http://www.marketguide.com>>; FinancialWeb <<http://www.financialweb.com>>; SmartMoney <<http://www.smartmoney.com>>; Thomson Investors Network <<http://thomsoninvest.com>>; and Wall Street City <http://www.tscn.com/wsc/Free_RT_Quotes.html> (all visited Nov. 1, 1999). See also CNBC <<http://www.cnbc.com>> (registered users receive 25 free real-time quotes per day) (visited Oct. 18, 1999).

¹²¹ See also Portals section beginning at page 1 for a more complete discussion about non-broker-dealer financial websites and advertising revenues.

¹²² See Appendix 2 for a table of ten on-line broker-dealers' policies for delivering market data via the Internet.

¹²³ In addition, an Internet user can view the limit order books of several ATSS in real-time at no charge. See Island <<http://www.isld.com>>; MarketXT <<http://www.marketxt.com>> (both visited Oct. 1, 1999).

Depending on the services their on-line firms offer, account holders have access to real-time market data to track stocks and sectors, price their portfolios, and produce charts. For the more sophisticated investor, on-line firms and financial websites offer streaming quotation and last sale information, Nasdaq Level II quotes, and technical tracking. These products may be offered at an extra charge or, in the case of an on-line broker-dealer, in return for maintaining a minimum account balance or executing a certain number of trades in a specific time period.

These developments raise a number of questions about the current real-time market data pricing scheme, including:

- How do the market data pricing schedules take into account the difference between the access fees charged for retail (non-professional) and professional users so that these fees are “fair and reasonable” and not “unreasonably discriminatory” for both groups of users?
- Do the market data pricing schedules strike the right balance in terms of raising sufficient revenues while encouraging the wide availability of real-time market data in light of today’s market exigencies, technological advances, and investor demand?
- How do the new pricing schedules take into account retail (non-professional) investors’ demand for real-time market data given the rapid growth of the Internet and on-line brokerage?

C. Roundtable Participants’ Views and Other Findings

1. Roundtable Participants’ Views

Generally, the on-line brokerage participants stated that their customers expected them to make available as much real-time market data as possible. As one put it, on-line investors have an “insatiable” demand for real-time data.

Among the participants expressing views, there was general agreement that the Internet represented changed circumstances, warranting a reevaluation of the pricing model for delivering real-time market data to individual investors. The on-line brokerage participants were especially critical of the current market data pricing model. Several stated that the cost associated with real-time data required them either to “ration” it out to customers, absorb the cost, or to pass the cost on to their customers. These firms did not believe that passing the cost on to customers was a practical alternative. The majority of on-line firms stated that they rationed out real-time market data. While they expressed a

desire to make real-time data more widely available, they claimed that it was very difficult to justify the expense, particularly for their inactive customers.¹²⁴

Two participants questioned why firms should pay to furnish market data to customers at all, if it was generally agreed that the Commission and the industry should encourage transparency and the free flow of information. In addition, one participant expressed the view that charging fees for investors' use of real-time data is inconsistent with the e-commerce model of making information free and charging customers only for transactions.

As a group, the participants recognized the industry's need to meet the costs of creating and maintaining an infrastructure to collect and disseminate market data. A difference of opinion emerged among the participants, however, as to whether Section 11A contains a cost recovery standard. Several participants believed that Section 11A clearly had a cost recovery standard.¹²⁵ Others thought that the statute was silent on the cost recovery issue, allowing the Commission to set policy on the appropriate uses of market data revenues.

In connection with this discussion, various participants observed that market data revenues had become a significant source of funding for SRO oversight functions, coinciding with a period when the Commission had stepped up its demands for more oversight. The participants cautioned that eliminating market data revenue as a source of funding for SRO oversight functions may impede the Commission's goal of enhancing SRO regulation. Two participants emphasized that the SROs needed some way to secure sources of funding to meet the costs of self-regulation. These participants added that, if market data revenues were not an appropriate means to meet these costs, another means surely needed to be found to prevent the SROs from facing revenue shortfalls. In response, a participant suggested that the Commission test the assumption that the SROs actually direct revenues from market data fees to meet regulatory costs. On this point, several participants questioned whether SRO programs to rebate or share market data revenues with their members were an appropriate use of such revenues.¹²⁶ Another

¹²⁴ One on-line broker-dealer remarked that its policy of providing a real-time quote along with the entry of an order had the unintended consequence of leading some customers to enter limit orders well away from the current market just to receive a quote. The on-line brokerage added that this created unnecessary message traffic for both itself and the market centers handling its customers' orders.

¹²⁵ Two of these participants cited as support a 1984 decision by the Commission later affirmed by the D.C. Circuit Court of Appeals. *See In re Institutional Networks Corp.*, Exchange Act Release No. 20,874 (Apr. 17, 1984), *aff'd*, *NASD v. Securities and Exchange Commission*, 801 F.2d 1415 (D.C. Cir. 1986). Another participant believed this decision was silent on the cost recovery question.

¹²⁶ Several exchanges and the NASD have adopted programs to rebate or share market data revenues with their members. *See, e.g.*, Exchange Act Release No. 41,174 (Mar. 16, 1999), 64 Fed. Reg. 14,034 (1999) (NASD); Exchange Act Release No. 41,286 (Apr. 14, 1999), 64 Fed. Reg. 19,843 (1999) (Cincinnati Stock Exchange); Exchange Act Release No. 40,591 (Oct. 22, 1998), 63 Fed.

participant believed that the SROs should find a funding source other than market data fees to meet their regulatory costs.¹²⁷

Another related issue arose during the discussion. How would eliminating market data revenues affect certain exchanges that are now highly dependent on these fees as a source of income? While some participants expressed sympathy on this point, two participants stated the view that market data revenues should not be used to subsidize the operation of markets.

Finally, the conversation briefly touched upon whether any entity had proprietary rights in market data. The three on-line brokerage participants who raised the issue contended that market data belonged to the public and should not be considered the property of the SROs.

2. Other Recent Developments

Since the roundtables concluded, a number of significant developments involving the market data issue have arisen. In June 1999, the SIA and Arthur Andersen issued a White Paper on Market Data Pricing (“White Paper”).¹²⁸ The White Paper noted that over the last several years, there has been exponential growth in on-line trading and individual investors’ use of market data.¹²⁹ The White Paper also noted that full-service firms often pay a professional terminal-based fee which allows them to provide quotes over the telephone to their customers at no additional cost.¹³⁰ On the other hand, when an on-line broker-dealer customer requests a quote through the Internet, a fee-per-quote charge is imposed.¹³¹ This difference in quote fees leads to the disparate use of market data between the full-service and on-line discount firms. In addition, the White Paper stated that, given today’s volatile and high-volume markets, delayed market data “cannot seriously be used as part of an investor’s trading decisions,” and noted that the markets “uniformly encourage the use of real-time data for investors.”¹³²

Reg. 58,078 (1998) (Boston Stock Exchange); and Exchange Act Release No. 38,237 (Feb. 4, 1997), 62 Fed. Reg. 6,592 (Feb. 12, 1997) (Chicago Stock Exchange).

¹²⁷ The participant suggested that a possible solution might be for each SRO to incorporate its regulatory costs into its quotation after decimal pricing was implemented, with the cost being passed through to the customer.

¹²⁸ SIA and Arthur Andersen, White Paper on Market Data Pricing (June 1999).

¹²⁹ *Id. at 16.*

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² *Id.*

Several broker-dealers interviewed for the White Paper expressed views similar to those voiced by the roundtable participants on the cost of providing real-time data to customers and the relationship of market data revenues to SRO operating costs.¹³³ The White Paper concluded that it was time to take a “fresh look” at market data pricing to build a framework flexible enough to meet the SROs’ needs and yet responsive enough to adapt to changes within the industry.¹³⁴

Members of Congress have introduced three different bills relating to market data this session.¹³⁵ In June, the House held hearings on one of these bills, H.R. 1858, the “Consumer and Investor Access to Information Act of 1999.”¹³⁶ H.R. 1858 would prohibit the misappropriation of real-time market data and provide new federal remedies against misappropriators of such data. Representatives from the Commission, NYSE, NASD, Bloomberg Financial Markets, and three on-line brokerages (Ameritrade, DLJdirect Inc., and Charles Schwab & Co., Inc.) testified in support of this legislation.¹³⁷

The testimony also touched upon a variety of other issues relating to real-time market data. DLJdirect, Schwab, and the NYSE each made the point that real-time market data helps level the playing field between individual investors and market

¹³³ *Id.* at 20.

¹³⁴ *Id.* at 29. Specifically, the White Paper’s goals for such a framework are to: reduce administrative burdens, explore enterprise licensing models, balance professional and non-professional usage for equitable allocation of costs, and explore the Internet as a delivery mechanism for market data. The SIA set out some specific means to accomplish these goals. *Id.* at 29-30.

¹³⁵ S. 95, 106th Cong. (1999) (the “Trading Information Act”); H.R. 354, 106th Cong. (1999) (the “Collections of Information Antipiracy Act”); and H.R. 1858, 106th Cong. (1999) (the “Consumer and Investor Access to Information Act”).

¹³⁶ *The Consumer and Investor Access to Information Act of 1999: Hearings on H.R. 1858 Before the Subcomm. on Finance and Hazardous Materials of the House Comm. on Commerce*, 106th Cong. (1999) [hereinafter *Information Act Subcommittee Hearings*].

¹³⁷ Except for Bloomberg, each organization also was a roundtable participant. In addition, Charles Schwab & Co., Inc. recently submitted a rulemaking petition to the Commission to review the market data fee structures imposed by the CTA, NASD, and OPRA. Petition for Rulemaking under Section 11A of the Exchange Act, Letter from Sam Scott Miller, Orrick, Harrington, & Sutcliffe, to Jonathan G. Katz, Secretary, SEC (June 29, 1999). The petition charges that the current fee structures are inconsistent with the requirements of Section 11A. Among other things, the petition asserts that the new CTA pilot schedule places a disproportionate share of CTA fees on on-line investors compared to customers of traditional brokerages, Section 11A requires the CTA to justify its fee schedule on a cost basis, and the Commission should both exercise greater regulatory oversight of the CTA and require industry and public representation in the CTA’s management.

professionals.¹³⁸ The on-line brokerages noted that: (1) technology, (2) the immediacy of the Internet, (3) customer demand, and (4) competition among firms were driving the increased demand for real-time market data.¹³⁹ In addition, the NYSE noted the importance of the Internet as a distribution channel for the delivery of market data to individual investors.¹⁴⁰ DLJdirect and Schwab offered indicia of how frequently customers used real-time market data: DLJdirect claimed that its 600,000 customers had accessed 53.5 million real-time quotes in a recent one month period, while Schwab posited that it registered approximately 75 quote looks per trade.¹⁴¹ In the second quarter of 1999, DLJdirect and Schwab executed approximately 18,000 and 137,000 on-line trades daily, respectively.¹⁴² They contended that the current structure disadvantaged on-line firms vis-a-vis traditional firms.¹⁴³ Moreover, they asserted that the cost of real-time market data affected on-line firms' ability to provide it to their customers in existing and proposed applications.¹⁴⁴

The NYSE and NASD referenced their efforts to make market data as widely available as possible for the benefit of investors.¹⁴⁵ At the same time, the NYSE stated

¹³⁸ *Information Act Subcommittee Hearings, supra* note 136, at 18 (self-directed on-line investor desires access to information broker-dealers formerly provided only to professionals; real-time market data allows investors to make decisions on same basis as professionals "in the know"); *id.* at 40 (widespread distribution levels the playing field for all investors); and *id.* at 50 (helps individuals play on level field with professionals).

¹³⁹ *Id.* at 18 (the power of the Internet is in providing immediate access to current information, less than real-time information is in many cases unacceptable); *id.* at 23, 25 (ease and speed with which customers can transact has increased demand for and value of real-time data because investors can put it to use; competitive process is increasing use of real-time data as technology makes it more readily available); and *id.* at 51 (technology has transformed the way Schwab can deliver products and services to investors).

¹⁴⁰ *Id.* at 46.

¹⁴¹ *Id.* at 18 (period was mid-April to mid-May 1999); *id.* at 60.

¹⁴² CREDIT SUISSE FIRST BOSTON, ON-LINE TRADING QUARTERLY, *supra* note 11, at 1.

¹⁴³ *Information Act Subcommittee Hearings, supra* note 136, at 24 (asserting that on-line customers pay twice for market data: once in commissions and once in on-line firm's fee to access data); *id.* at 53.

¹⁴⁴ *Id.* at 25 (costs of accessing market data affect customer usage of market data and consequently the efficiency of customer's transactions); *id.* at 49, 52-3 (the higher the cost, whether Schwab absorbs or passes it along, the more a barrier to providing it to customers in as many ways and forms as they want it; unnecessary restrictions on real-time market data could chill innovative uses such as streaming quotes or technical tracking; cost is the single greatest hurdle in providing access to market data).

¹⁴⁵ *Id.* at 34, 40, and 46 (intent is to make market data ubiquitous; 70 million investors have access to real-time market data via cable television; 100 million investors have access to delayed and real-time market data via the Internet; real-time market data is available free to investors who enter into click-through agreements offered on a number of websites).

that ensuring widespread distribution of market data is good business for the Exchange, as it “primes the pump” and helps generate additional trading volume.¹⁴⁶ Finally, the NASD detailed the role that market data revenues play in funding the NASD’s regulatory operations.¹⁴⁷

3. SROs and Market Data Revenue

A comparison of NYSE and NASD market data revenues as a percentage of total revenues indicates the relative importance of market data revenues as a component of these SROs’ total revenues both before and after the debut of on-line brokerage. In 1994, the NYSE’s share of CTA Network A revenue amounted to \$68.1 million, or 15.1 percent of total NYSE revenues,¹⁴⁸ while the NASD’s received \$62.1 million, or 16.7 percent of its total revenues, from Nasdaq market data in 1994.¹⁴⁹ In 1998, NYSE’s share of CTA revenue was \$111.5 million (15.3 percent of total revenues).¹⁵⁰ The NASD’s market data revenues from Nasdaq were \$128.5 million (17.4 percent of total revenues).¹⁵¹

These figures show that market data revenues make up a significant portion of the NYSE’s and NASD’s total revenues. They also reveal that, while in absolute dollars terms NYSE and NASD market data revenues have increased substantially since 1994, market data revenues have remained a relatively constant percentage of both SROs’ overall revenues.

Although professional user revenues continued to make up the largest component of overall market data revenues in 1998, on-line investor demand for this data has undoubtedly contributed to the increased revenue for both the CTA Network A and Nasdaq. As Table IV-1 illustrates from 1994 to 1998, non-professional user fees, as a percentage of the total fees collected, have increased. For CTA Network A, they have increased from 1.6 percent to 9.9 percent of total fees collected and for the Nasdaq they have increased from 2.1 percent to 14.0 percent.

Table IV-1: CTA Network A and Nasdaq Market Data Revenues

¹⁴⁶ *Id.* at 40.

¹⁴⁷ *Id.* at 34.

¹⁴⁸ 1994 NYSE ANNUAL REPORT 31.

¹⁴⁹ 1994 NASD ANNUAL REPORT 44. The NASD’s annual reports combine Nasdaq market data revenues with the NASD’s share of CTA revenue and transaction service charges. Accordingly, the figures used in this Report are lower than those found in the NASD’s 1994 and 1998 annual reports.

¹⁵⁰ 1998 NYSE ANNUAL REPORT 43.

¹⁵¹ 1998 NASD ANNUAL REPORT 35.

**From Professional and Non-Professional User Sources -
1994 and 1998 (in thousands of dollars)**

	1994 (% total)	1998 (% total)
CTA Network A		
Professional	79,519 (89.4%)	112,444 (78.2%)
Non-Professional	1,470 (1.6%)	14,276 (9.9%)
Other	7,972 (9.0%)	17,009 (11.8%)
Nasdaq		
Professional	59,564 (96.0%)	107,867 (84.3%)
Non-Professional	1,287 (2.1%)	17,918 (14.0%)
Other	1,195 (1.9%)	2,135 (1.7%)

According to some firms, the old fee schedule caused on-line investors to pay a disproportionate share of the fees. The recent changes to the CTA and NASD fee schedules have reduced on-line firms' costs for providing real-time market data to their customers. This decrease undoubtedly will have a significant impact on the growth rates in non-professional market data revenues in 1999 and beyond. Though only recently implemented, the new fee schedules may result in less 'rationing' of market data to on-line customers. In addition, the new cost schedules may enhance the ability of on-line firms to make greater use of real-time data in existing account features, as well as encourage the development of innovative products.

D. Conclusions and Recommendations

1. Conclusions

Although the views diverge on many of the market data issues, it is still possible to draw a number of general conclusions. First, individual investors must be able to access real-time market data to make informed investment decisions -- particularly in today's market environment.¹⁵² The industry's recognition of the relative importance of real-time data, may be evidenced by the fact that it levies fees on the use of real-time market data, but gives away delayed data. Second, real-time market data currently is widely available. On-line brokerages offer real-time data to account-holding customers and, in some cases, to registered users. A number of non-broker financial websites make real-time data

¹⁵² In adding Section 11A of the Exchange Act almost twenty-five years ago, Congress recognized that "it is critical for those who trade to have access to accurate, up-to-the-second information as to [last sale reports and quotation information]." S. Rep. No. 75, 94th Cong., 1st Sess. at 8 (1975).

available for free to individuals who enter into a click-through agreement. Individual investors also have access to a real-time ticker via cable news networks.

Third, the Internet is emerging as the preeminent channel for disseminating market data to individual investors. Fourth, many of the services on-line brokerages offer depend upon access to real-time market data. Fifth, on-line brokerages' (and non-broker financial websites') consumption of real-time market data only will increase. Competitive initiatives and technological advances will drive on-line brokerages to widen their use of real-time market data-dependent applications.¹⁵³ Sixth, the SROs' market data revenues historically add up to a significant percentage of their overall revenues. Consequently, any decrease in these revenues could have implications for the SROs' regulatory expenditures. Seventh, since the debut of on-line brokerage, SRO market data revenues have grown, but remain a consistent percentage of overall SRO revenues. SRO revenues from individual investors' use of market data, however, have grown significantly over the same period.

Consistent with the Commission's posture as a full disclosure agency, it should encourage the broadest possible dissemination of real-time market data to individual investors. Integral to carrying out this policy, the Commission must determine whether real-time market data in today's market environment is available on terms that are "fair and reasonable" and "not unreasonably discriminatory." Resolving this issue will require the Commission to consider: (1) the appropriate factors that should enter into the pricing of market data, and (2) the appropriate uses of market data revenues by the SROs.

2. Recommendations

These issues will be considered in a broad review of the current scheme for the generation, distribution, and pricing of market data. This review should receive input from all of the affected constituencies. The Commission's upcoming market data concept release provides the perfect vehicle to conduct this evaluation. The concept release will allow the Commission to lay out the complex issues involved in this review and solicit views and analyses from all interested parties.

In conclusion, the Commission's concept release should pay particular attention to the issues raised in this section, namely:

- Should the CTA and NASD justify their pricing schedules on a cost recovery basis?
- What elements should be considered as part of the cost of producing market data? For example, should the regulator's costs of ensuring the integrity of the information be included in determining the appropriate pricing schedule?

¹⁵³ Examples of such applications (most of which are already offered) include: real-time account balances; streaming quotes; technical charting; portfolio evaluators and portfolio optimizers.

- Should SROs be entitled to rebate or share revenues with their membership?
- How do the market data pricing schedules take into account the difference between the access fees charged for retail (non-professional) and professional users so that these fees are “fair and reasonable” and not “unreasonably discriminatory” for both groups of users?
- Do the market data pricing schedules strike the right balance in terms of raising sufficient revenue while encouraging the wide availability of real-time market data in light of today’s market exigencies, technological advances, and investor demand?
- How do the new pricing schedules take into account retail (non-professional) investors’ demand for real time market data given the rapid growth of the Internet and on-line brokerage?

V. SYSTEMS CAPACITY¹⁵⁴

A. Background

1. Current Regulatory Framework

As noted in the Trends section of this report, on-line firms have experienced tremendous growth in the last three years.¹⁵⁵ To keep pace with this unprecedented growth, firms have had to upgrade systems capacity on a regular basis. During their attempts to add excess capacity, several of the leading on-line firms experienced well-publicized delays and outages.¹⁵⁶ These delays and outages have renewed regulatory concern as to whether firms are maintaining sufficient operational capability.¹⁵⁷

Consistent with Sections 2 and 11A of the Exchange Act of 1934, the Commission has authority to regulate systems capacity for exchanges and the NASD. Section 2 indicates the need to perfect the national market system for securities.¹⁵⁸ Sections 11A(a)(1)(B) and (C) note the opportunity to make the securities markets more efficient and effective using data processing and communications techniques.¹⁵⁹ These sections also establish the Commission's responsibility to maintain fair and orderly markets to assure the execution of securities transactions.¹⁶⁰ The staff has defined sufficient

¹⁵⁴ The roundtables focused on systems capacity. These discussions did not focus on reliability and performance issues which are very important as well.

¹⁵⁵ See *supra* Trends section at pages 1-1 discussing the growth in on-line investors and accounts.

¹⁵⁶ See Megan Barnett, *Walking a Tightrope*, THE INDUSTRY STANDARD, May 17-24, 1999, at 46-48 (discussing in greater detail systems outages in the on-line brokerage industry); Blake A. Bell, *On-line Brokerages Under Siege for Trading Outages and Delays*, WALLSTREETLAWYER.COM, Apr. 1999; *Too Much too Soon?* THE WALL ST. J. INTERACTIVE EDITION, June 14, 1999 (chronicling the significant delays and outages).

¹⁵⁷ Due to the intense competition for order flow in on-line brokerage, at least one state regulator considered taking action against firms that solicit new on-line accounts without devoting sufficient resources to update systems capacity. *N.Y. Eyes First Enforcement Action Over On-line Capacity*, COMPLIANCE REPORTER, Aug. 16, 1999, Vol. VI, No. 17 (indicating that claims of fraudulent advertising may be brought by the New York Attorney General's office against firms if they solicit new clients without ensuring that they have adequate capacity).

¹⁵⁸ 15 U.S.C. § 78(b) (1999). Section 2 of the Exchange Act recognizes that “. . . transactions in securities . . . are affected with a national public interest which makes it necessary to provide for regulation and control of such transactions . . . to require appropriate reports, to remove impediments to and perfect the mechanisms of a national market system for securities . . . and to ensure the fair and honest markets in such transactions . . .” *Id.*

¹⁵⁹ 15 U.S.C. § 78k-1 (1999). Section 11A provides that “the securities markets are an important national asset which must be preserved and **strengthened** . . .” (emphasis added). *Id.*

¹⁶⁰ *Id.*

operational capability in two Automation Review Policy (“ARP”) statements, ARP I and ARP II.¹⁶¹

Section 15(b)(7) gives the Commission the authority to adopt standards of operational capability for broker-dealers.¹⁶² The staff has provided guidance to broker-dealers in Staff Legal Bulletin No. 8 (“SLB No. 8”).¹⁶³ Finally, the Commission has proposed Rule 15b7-2,¹⁶⁴ the Operational Capability Rule, to further clarify the obligation of broker-dealers to have sufficient capacity as required by Section 15(b)(7).

The Commission adopted ARP I in 1989 in response to the 1987 Market Break and ensuing concerns about the capacity of exchanges in periods of natural disasters.¹⁶⁵ ARP I expresses the Commission’s and SROs’ policy on capacity requirements. It states that SROs should, on a voluntary basis, establish comprehensive assessment and planning programs to determine the extent of the systems capacity of their markets and the vulnerability of their automated trading systems.¹⁶⁶ Although ARP I and II do not specifically mention broker-dealer requirements, the Commission has encouraged all broker-dealers to comply voluntarily with these policy statements.¹⁶⁷

¹⁶¹ Exchange Act Release No. 27,445 (Nov. 16, 1989), 54 Fed. Reg. 48,703 (1989); Exchange Act Release No. 29,185 (May 9, 1991), 56 Fed. Reg. 22,490 (1991).

¹⁶² 15 U.S.C. § 78(o) (1999). Section 15(b)(7) provides that “No registered broker or dealer . . . shall effect any transaction in, or induce the purchase or sale of, any security unless such broker or dealer meets such standards of operational capability”

¹⁶³ SEC Staff Legal Bulletin No. 8 (Division of Market Regulation) (Sept. 9, 1998).

¹⁶⁴ See Exchange Act Release No. 41,142 (Mar. 11, 1999), 64 Fed. Reg. 12,128 (1999). Proposed Rule 15b7-2 would provide:

(a) This section applies to every broker or dealer registered pursuant to Section 15 of the Act (15 U.S.C. § 78o). If you do not have the operational capability, taking into consideration the nature of your business, to assure the prompt and accurate order entry, execution, comparison, allocation, clearance and settlement of securities transactions, the maintenance of customer accounts, and the delivery of funds and securities, you may not:

- (1) Effect any transactions in securities;
- (2) Induce the purchase or sale of securities;
- (3) Receive or hold customer funds or securities; or
- (4) Carry customer accounts.

(b) For the purposes of this section, the term customer includes a broker or a dealer. *Id.*

¹⁶⁵ Contributing to the need to issue ARP I was the effect of the earthquake in northern California on the Pacific Stock Exchange during the week of October 16-20, 1989 and an electrical fire in the building that houses the Securities Industry Automation Corporation (“SIAC”) on November 10, 1989. Exchange Act Release No. 27,445, *supra* note 161, nn. 14-15.

¹⁶⁶ *Id.*, nn. 17.

¹⁶⁷ *Id.*

In ARP I, the Commission also noted the impact that systems failures and problems could have on the investing public, the risk exposure of broker-dealers, and the efficiency of market centers. As a result, ARP I states that SRO programs should: (1) establish current and future capacity estimates; (2) conduct capacity stress tests periodically; and (3) obtain an annual independent assessment of whether the affected systems can perform adequately in relation to estimated capacity levels and possible threats to the systems.

The Commission adopted ARP II in 1991 after recognizing the need for further guidance in this area.¹⁶⁸ ARP II encourages the exchanges and the NASD to obtain independent reviews of whether the risks and controls in place in the SROs' automated trading and information dissemination systems need further reviews or enhancements. ARP II also suggests that the SROs provide notice of significant additions, deletions, or other changes to their automated systems on an annual and as needed basis. Finally, ARP II notes that SROs should provide Commission staff with real-time notifications of unusual events such as significant outages involving automated systems. ARPs I and II have ensured that the markets function with adequate capacity.

Commission staff recently provided additional guidance on systems capacity for broker-dealers in SLB No. 8.¹⁶⁹ The Division of Market Regulation staff issued SLB No. 8¹⁷⁰ in response to the market break in October 1997. At that time, the staff had received reports of broker-dealer operational problems and complaints from investors unable to access their brokerage accounts. The large trading volume concentrated in a short time period apparently overwhelmed the capacity of some broker-dealer systems. As a result, many broker-dealers could not deliver or execute orders in a timely fashion. In addition, broker-dealers were unsure of their responsibilities during circuit breaker trading halts, which were triggered for the first time.¹⁷¹

¹⁶⁸ See also Michael J. Metzger, *Capacity, Volatility and Other Developments: What All Broker-Dealer Should Consider in Response to Increased Electronic Commerce*, SIA COMPLIANCE AND LEGAL DIVISION, NEWS & NOTES, Apr. 1999 (providing further guidance on broker-dealer considerations).

¹⁶⁹ A staff legal bulletin provides industry guidance, but does not have the binding effect of a Commission rule.

¹⁷⁰ The staff's guidance appears to have been well-received by the industry. See *Industry Welcomes SEC Guidance on Trading Halts*, WALL ST. LETTER, Sept. 21, 1998; *Lawyers Advise Heeding New SEC Capacity Guidelines*, FIN. NETNEWS, Sept. 21, 1998; *SEC Directs Firms to Boost Capacity for Volume Spikes*, SECURITIES INDUSTRY NEWS, Sept. 21, 1998.

¹⁷¹ The next significant test for broker-dealer systems capacity occurred on the high volume days of August 31 and September 1, 1998. Having improved their capacity following the 1997 market break, broker-dealers were better equipped to process customer orders during these peak periods of market activity.

In SLB No. 8, the staff clarifies the obligations of broker-dealers during circuit breaker trading halts. SLB No. 8 also reminds firms to maintain sufficient internal systems capacity to operate properly during periods of excessive trading and encourages firms to have procedures for handling systems capacity problems.

Because of the expected growth in on-line accounts, the staff indicated that a firm's capacity should be several times the firm's average trading volume. In SLB No. 8, the staff included additional steps a firm could take to improve access and decrease capacity constraints, including: (1) employing multiple Internet service providers ("ISPs"); (2) implementing class "B" Internet addresses to improve access quality; (3) improving server capacity; and (4) at times of peak usage, giving priority to customers who wish to enter orders over customers merely seeking account or quote information.¹⁷²

The NASD provided additional guidance on systems capacity to member firms in Notices to Members ("NTM") 99-11 and 99-12. These NTMs generally reiterate the guidance provided by SLB No. 8.¹⁷³ Recognizing the need for rulemaking in this area, the Commission had proposed an operational capability rule for broker-dealers, Rule 15b7-2.¹⁷⁴ This proposed rule would require registered broker-dealers to have and maintain sufficient operational capability to perform the range of services normally rendered to their clients. The Commission has not acted to adopt these rules due to commenters' concerns.

2. Measuring Capacity

Presently, no single standard exists for measuring capacity. As a result, brokerage firms measure capacity in many different ways. Some firms measure capacity based on the number of shares and the number of trades their system can process. Other firms determine capacity through the average number of total website users for a defined period of time. Still other firms measure capacity in terms of the number of simultaneous transactions during peak periods of activity, taking into account all possible uses of the system, including trading and non-trading activities.

In addition to calculating capacity in different ways, firms differ in how frequently they assess systems capacity. Some firms have adopted a continuous monitoring system alerting firm personnel if there is a systems overload on any one component. Other firms

¹⁷² SLB No. 8 also advocated educating investors regarding on-line access and discussed the necessity of providing alternative means to place orders when Internet access is slow or unavailable.

¹⁷³ The NASD also advises firms to disclose to customers that delays at the market opening and at closing may cause market orders to be executed at prices away from the price that was quoted at the time the order was entered. *See* NASD Notices to Members 99-11 (Feb. 1999) and 99-12 (Feb. 1999).

¹⁷⁴ *See supra* note 164 (detailing the provisions of proposed Rule 15b7-2).

regularly test systems capacity on a weekly or monthly basis. Still other firms never test systems capacity at all.¹⁷⁵

3. Disclosure to On-Line Customers

Another integral issue is what systems capacity-related types of disclosure do investors receive. Do investors understand that there may be delays in processing trades and what they should do if they encounter delays or outages? A review of the ten largest on-line firms' websites¹⁷⁶ for disclosure regarding systems capacity limitations and outages demonstrates the need for better disclosure.

Most firms address delays and systems capacity issues in the new account documentation. The documents contain a rather obtuse discussion using legalistic terms, clearly not written -- and not clearly written -- in plain English. The disclosure also is usually near the end of the customer agreement, not in a location intended to alert customers about potential problems that could be caused by systems delays or failures. In addition, very few firms have disclosures on their websites to educate customers about delays and outages. Possibly setting the ideal standard for the industry to emulate, one site actually advises customers to have alternative methods of trading, including a back-up account at another brokerage firm.

B. Roundtable Participants' Views

One roundtable participant noted that the proper focus in measuring systems capacity is not the number of shares traded. Retail investors using the Internet trade more frequently and in smaller increments. Although the volume of shares traded over the Internet may be the same or slightly higher, message traffic has increased disproportionately -- significantly straining capacity.

The roundtable participants also noted that the backup of orders at market opening and to a lesser extent at market closing strains firms' systems capacity. As the conversation moved to systems outages, on-line firm participants reminded others that system outages occur at off-line firms as well as at on-line firms, but that outages at off-line firms received less, if any, publicity.

Several roundtable participants indicated that certain systems outages could be difficult to detect because systems delays and outages can occur at many different points along the path of communication between a broker-dealer firm and its customer.¹⁷⁷ For

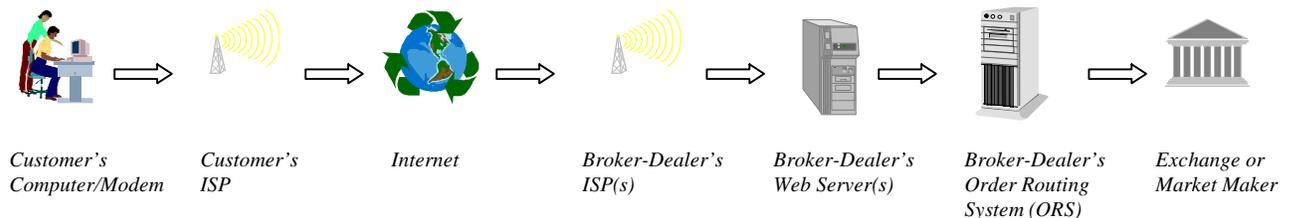
¹⁷⁵ Although there is no requirement, firms should at the very least test their systems periodically. Exchange Act Release No. 27,445, *supra* note 161, nn.17.

¹⁷⁶ These firms were chosen on the basis of market share as provided by a Piper Jaffray chart located on page 1.

¹⁷⁷ A user requesting information from an on-line broker-dealer may encounter delays in accessing or an inability to access a website for the following reasons: (1) a user's modem or computer is

example, a firm may not have a problem with its website but customers may have problems with their ISPs. The diagram below displays the various connection points susceptible to failure:

Diagram VI-1: Internet Connection Points



According to one roundtable participant, firms with a nationally dispersed customer base have even more problems identifying systems outages. For example, communication lines may be working in San Francisco but not in New York. Some firms indicated that they do not always know when part of their systems is down if they continue to receive orders from other regions of the country.

Many roundtable participants acknowledged an occasional systems failure. They also said that they attempted to minimize these failures to the greatest extent possible. One participant called for on-line firms to commit to running systems as close to perfection as possible. That participant reasoned that, because on-line firms market themselves primarily as receivers of orders through electronic means, they should ensure that their electronic order entry systems receive the highest allocation of resources. Most of the participants agreed that the threat of customers migrating to firms with the most reliable systems has forced firms to have more than sufficient capacity.

Once a firm identifies a systems failure, two questions immediately arise: (1) how should the firm handle the impact of the failure, and (2) how can the firm prevent such a failure from recurring in the future? Several participants described their firms' practices of reimbursing customers for orders already in the system at the time of an outage. These same participants conceded that their firms did not reimburse customers who claimed to have tried to enter orders while the system was down. The firms justified this approach based on their inability to determine which customers actually attempted to enter orders and which customers were gaming the system and had never attempted to place an order.

Most roundtable participants believed that systems stress was not unique to the bull market and that the volume message traffic would be equal, if not greater, in periods

slow or not working correctly; (2) a user's ISP is down, slow or delayed; (3) traffic on the Internet is heavy creating delays in overall usage; (4) an on-line broker-dealer's ISP is down, slow or delayed; and (5) the on-line broker-dealers website contains insufficient computer hardware to process the user's request.

of market decline. Many participants indicated that they had adopted contingency plans to address systems failures prospectively. Some of the contingency plans included: (1) allowing trading to continue to occur on-line, (2) temporarily suspending confirmation delivery, and (3) delaying updates to account positions. Most firms also maintain a network of telephone service representatives to process orders when electronic order entry is not functioning. To handle order execution problems resulting from a systems failure, most participants have access to multiple methods of execution. If any one executing broker-dealer had systems problems, the firm can route the orders to a different broker-dealer for execution. For example, an introducing broker-dealer¹⁷⁸ normally routes all of its order flow to executing broker-dealer X but maintains routing relationships with broker-dealers Y and Z. If the introducing broker cannot route a customer order to executing broker-dealer X because of systems problems at broker-dealer X, it would route the order to broker-dealer Y or Z rather than wait for the systems at broker-dealer X to accept the customer's order. When asked whether they would like more guidance in the area of systems capacity, most of the roundtable participants said that they indicated a preference for Commission "jawboning" (*i.e.*, informal guidance) over new rulemaking.

C. Conclusions and Recommendations

1. Conclusions

On-line firms have approached the issue of systems capacity in different ways. Some firms assess systems capacity and increase capacity on a regular basis whereas others firms are less proactive -- adding capacity only when required to prevent systems outages. The disclosure of systems-related problems also differs among firms, with some firms adequately educating their customers about systems delays and outages and other firms opting to make only a passing reference about the possibility of systems failures.

The roundtable discussions and observations lead to the following conclusions regarding systems capacity. First, based on the number of customer complaints involving systems issues,¹⁷⁹ customer expectations regarding systems capacity are not always in-line with the disclosures that firms make in new account forms, customer agreements, and other documents. Plain English disclosure of periodic systems failures (*e.g.*, in customer agreements) and prominent display of existing disclosures, would help alleviate inflated expectations. Second, in the event of a computer systems failure, alternative methods of order entry at some on-line firms may be insufficient to satisfy customer demand. As a matter of good business practice, firms should: (1) provide sufficient back-up methods for

¹⁷⁸ An introducing broker-dealer receives orders from customers but does not hold custody of client funds, engage in clearance of trades, or generate confirmations. An introducing broker-dealer receives orders and routes them to an executing broker-dealer.

¹⁷⁹ See *Appendix 5* for a breakdown of complaints by category, including a customer's inability to access a broker-dealer's system.

order entry and execution, and (2) make customers aware of the alternative methods for order entry.

Third, in the event of systems failures, customers should be fully informed of the extent of the problem and its expected duration. To that end, some firms notify customers of delays and outages through the use of splash screens or pop-up messages that include a transmission date and time and indicate the expected duration of the systems problem, if known. Fourth, firms should consider as a matter of best practice maintaining the ability to route orders to multiple market centers for execution to provide alternatives for the execution of a customer's order in the event that the preferred market center for execution is not functioning. Fifth, firms should undertake contingency planning to detect and solve systems-related problems before they become bigger problems.

2. Recommendations

- The Commission should consider requiring all firms to maintain contingency/backup plans that are periodically tested and reevaluated to ensure that they continue to be adequate. The Commission should consider requiring all firms to keep records regarding significant outages pursuant to Section 17(a) of the Exchange Act.
- The Commission should consider advising all firms on how often they should test their systems and whether they should be required to document their evaluation efforts.¹⁸⁰ At a minimum, the Commission should consider requiring all firms to regularly subject their systems to a rigorous stress test to evaluate systems at maximum capacity.
- The Commission should consider reproposing the operational capability rule. As part of the reproposal, the Commission should consider the following issues:
 - Should broker-dealers, including introducing firms, be required to evaluate their systems capacity on a periodic basis?
 - Should broker-dealers be required to produce and maintain records demonstrating that they have performed such periodic capacity evaluations?
 - Should capacity evaluations be based on a specific model? If so, should that model review key uses of a system, both historical and anticipated, and the system's ability to process such uses?
 - Should broker-dealers be required to maintain sufficient systems capacity to process key anticipated uses of their systems during periods of market volatility?

¹⁸⁰ The Commission may want to encourage a periodic capacity assessment that includes: an analysis of the bandwidth of the system's ISP(s), capacity of its firewall, capacity of its Web servers, capacity of its order routing system ("ORS"), and the capacity of all supporting components.

- The Commission should require all firms to clearly inform new customers of potential systems delays and outages in new account documentation. This disclosure should be written in plain English and included in, among other documents, new account forms and customer agreements.¹⁸¹

¹⁸¹ See Investor Education section at 1 (reiterating the need to put new account documentation in plain English).

VI. INVESTOR EDUCATION

A. Background

As discussed in detail in the Trends section of this Report,¹⁸² the Internet provides investors with access to financial information, cheap commissions, and self-directed trading. Investors now have unfettered access to a multitude of information sources, including: real-time quotes, research reports and historical stock price data.¹⁸³ Prior to the Internet, investors had to receive most of this information from a registered representative. Currently, the combination of financial information and direct order entry has empowered -- or at least emboldened -- investors to trade without the assistance of a registered representative.

The current environment makes it more challenging for a registered representative to get to know his or her customer. Customers often retrieve financial information from many different sources without developing a personal relationship with their registered representative. Although one can argue that this disconnect has occurred since the advent of the discount brokerage firm, customers did not previously have access to this much information without the guidance of a registered representative. This shift in control over information from registered representatives to individual investors has altered investment dynamics. It has resulted in many well-informed investors, but also in many “over-informed” investors who are unsure of how to digest the mass amounts of information available. In addition, more full-service firms are providing on-line trading to their customers, further increasing the trend towards disintermediation.

Investors may view this disintermediation as a benefit in terms of cost savings. But does the average investor know and understand the intricacies of investing on-line? Digesting the mass amounts of free financial information available in making investment decisions poses one set of challenges. Getting the trade executed poses another. Everyone has heard the horror stories about investors trading on-line: attempting to cancel orders without success, receiving margin calls in their accounts that they cannot afford, and entering market orders during fast markets only to receive executions at prices vastly inferior to those quoted at the time the investors entered their orders.¹⁸⁴

These stories demonstrate that learning to trade on-line can prove hazardous to your pocketbook. These experiences also have resulted in an increasing number of

¹⁸² See *supra* Trends section at pages 1-1.

¹⁸³ See *supra* notes 95, 98, 120 (listing some examples of websites where an individual can acquire financial information); Arthur Levitt, *Speech by SEC Chairman Common Sense Investing in the 21st Century Marketplace* (May 23, 1999) <<http://www.sec.gov/news/speeches/spch280.htm>> (discussing the amount of information available through the Internet, especially on EDGAR’s electronic database).

¹⁸⁴ *Id.*

investor complaints. In fiscal year (“FY”) 1998, the number of complaints¹⁸⁵ the Commission received from investors regarding their on-line firms increased from 259 to 1,207, or 366 percent over FY 1997’s numbers.¹⁸⁶ At the end of FY 1999, preliminary numbers indicate the receipt of 3,290 complaints, which represents a 273 percent increase over FY 1998’s complaints.¹⁸⁷ The most common categories of complaints ranked by frequency include: (1) difficulty accessing an account; (2) delays and failures in executing orders; (3) errors in processing orders; and (4) best execution problems.¹⁸⁸

Led by Chairman Levitt, the Commission has worked to educate investors about the marketplace. In January 1999, the Chairman issued a statement to investors discussing the benefits of on-line investing but warning investors to: (1) know what they are buying; (2) know the ground rules under which they buy and sell a stock or bond; and (3) know the level of risk they are undertaking.¹⁸⁹ With regard to the last item, the Chairman advocated the use of limit orders to protect customers from the risk of receiving an inferior execution price.¹⁹⁰ In a speech given in May 1999, Chairman Levitt indicated that, “an informed and knowledgeable investor is good for the industry and good for individual businesses.”¹⁹¹ In that speech, he urged firms to: communicate clearly with their

¹⁸⁵ There are two places to send complaints or inquire on the Commission’s website. The first place is the Commission’s Office of Investor Education and Assistance (“OIEA”) by using the OIEA complaint form located at <<http://www.sec.gov/consumer/jtopq1.htm>> or by directly e-mailing their mailbox at help@sec.gov. The second place is the Commission’s Division of Enforcement (“Enforcement”) complaint center. An individual can e-mail their complaint to the Enforcement mailbox at enforcement@sec.gov or could enter all relevant information into the Enforcement Complaint form located at <<http://www.sec.gov/enforce/con-form.htm>> and submit that form to the Commission electronically.

¹⁸⁶ OIEA statistics. Two possible factors contributing to this large number of complaints are: (1) the ease of making a complaint using the Internet as opposed to making it by mail, and (2) greater participation in the market by individual retail investors.

¹⁸⁷ OIEA statistics. In addition to these complaints tabulated by OIEA, Enforcement’s complaint center receives between 200 and 300 complaints daily, for a total of between 52,000 and 78,000 per year. The complaints received by the Enforcement complaint center cover a wide-range of activities and are not limited to complaints concerning on-line brokerage. In addition, there is some double counting, the extent of which we were not able to calculate, based on a number of complaints that arrive in the Enforcement complaint center that are then sent to an OIEA investor assistant. These complaints would be part of both Enforcement’s and OIEA’s numbers.

¹⁸⁸ See *Appendix 5* for a complete list of complaint categories and the number of complaints in each category.

¹⁸⁹ See Arthur Levitt, *Statement by SEC Chairman: Concerning On-Line Trading* (Jan. 27, 1999) <<http://www.sec.gov/news/press/99-9.txt>>.

¹⁹⁰ *Id.*

¹⁹¹ See Arthur Levitt, *Speech by SEC Chairman: Plain Talk About On-line Investing*, (May 4, 1999) <<http://www.sec.gov/news/speeches/spch274.htm>>.

customers, adopt plain English in their customer agreements, and advertise responsibly.¹⁹² As he did in January, the Chairman again challenged investors to educate themselves because “investor protection -- at its most basic and effective level -- starts with the investor.”¹⁹³

B. Education through Websites

1. Commission’s Website

The Commission has established a location for investors to visit and learn about on-line investing. It developed an investor education section on its website¹⁹⁴ in September 1995. At that time, the Commission recognized the value of the Internet in its investor education efforts. In a recent five month period, the investor education section¹⁹⁵ received 677,728 hits.¹⁹⁶ This section offers a “how to” invest section, cyberfraud alerts, a roadmap that recreates the Commission’s “Get the Facts on Savings” brochure, media outreach material, and Internet/On-Line trading tips. The site also offers interactive tools such as a Test Your Money Smarts quiz,¹⁹⁷ a link to a ballpark estimate sheet, and a mutual fund calculator.¹⁹⁸ The ballpark estimate sheet enables site visitors to quickly calculate how much they need to save for retirement based on how much income they expect they will need in the future. The Commission’s website was the first to include a mutual fund calculator.¹⁹⁹ This calculator allows individuals to compare the costs of owning different mutual funds.²⁰⁰

¹⁹² *Id.*

¹⁹³ *Id.*

¹⁹⁴ The address for the Commission’s website is <<http://www.sec.gov>>. In 1999, the Commission’s homepage received an average of 137,369 hits per week.

¹⁹⁵ The investor education section of the Commission website is located at <<http://www.sec.gov/invkhome.htm>>.

¹⁹⁶ OIEA statistics.

¹⁹⁷ The site also links to an Alliance for Investor Education quiz.

¹⁹⁸ From May 9, 1999 to August 29, 1999, individuals accessed the mutual fund fee calculator 52,511 times; the “how to” invest section 43,602 times; the cyberfraud alerts 38,429 times; the Internet and on-line tips 37,879 times; and the Test Your Smarts on-line quiz 9,866 times.

¹⁹⁹ See Aaron Lucchetti, *Internet ‘Calculators’ Help Investors Untangle Web of Fees, Loads, Expenses*, WALL ST. J. INTERACTIVE EDITION, Nov. 1, 1999 <<http://interactive.wsj.com/archive>>.

²⁰⁰ The OIEA staff plans to continue adding to the Commission’s investor education materials on an ongoing basis by expanding the number of topics about which investors can get information. In addition, OIEA plans to offer more interactive tools and intends to link to other sites with interactive tools.

2. Industry Association Websites

Several industry associations offer a vast array of non-commercial, educational materials on their websites. For example:

- The Bond Market Association's website²⁰¹ features an on-line checklist to help investors assess how bonds might fit into their portfolios, brochures and articles describing the features of various types of bonds, and links to current price information on investment-grade corporate bonds, actively traded municipal bonds, and Treasury securities.
- The "publications section" of the ICI's website²⁰² offers investors an interactive quiz, a glossary of mutual fund terms, brochures in both English and Spanish, and a list of -- and links to -- additional on-line investor resources, including calculators and materials aimed at target audiences, such as women and young investors.
- The SIA's website²⁰³ features interactive quizzes, brochures on investing basics (including market risks and on-line trading), and a link to the Stock Market Game—a low-cost, ten-week curriculum that helps students and adults learn more about the stock market by investing an imaginary \$100,000 portfolio.

Rather than reinvent the wheel, a firm that currently lacks on-line educational resources for its customers could link with industry association websites or import key brochures and tools. By purchasing or borrowing materials from industry associations, firms can readily increase the breadth and depth of their educational offerings without sending customers to other commercial websites.

3. Firm Websites

Websites of the ten largest on-line firms reveal that firms provide basic investment information -- similar to the SEC's site -- on their websites. Firm websites generally offered information on: (1) the principles of investing, (2) asset allocation tools, (3) letters and speeches by regulators, and (4) links to guides on personal investing. Of the ten firms surveyed, only five had designed extensive education programs for their customers. For the most part, firms provide passive information and tend not to have enough tools to enable individuals to learn in a more interactive environment.

²⁰¹ The Bond Market Association website, *supra* note 17.

²⁰² The "publications section" of the Investment Company Institute's website is located at <http://www.ici.org/ici_info/publications.html>.

²⁰³ The SIA's website is located at <<http://www.sia.com>>.

At least some firms, however, are looking at ways to better educate their customers by offering innovative approaches to learning. One firm allowed investors to practice investing with a \$100,000 model portfolio. A second site afforded individuals the opportunity to use financial calculators to determine their investment returns. A third website offered a free on-line curriculum and strived to be an “institution of higher learning.”²⁰⁴ This firm’s program presented investors with education materials on a variety of topics, including the basics of investing in stocks, bonds, mutual funds, and IPOs.²⁰⁵

C. Roundtable Participants’ Views

The roundtable participants generally agreed that regulators and the industry should coordinate better to provide investors with whatever information they need to become informed investors. Although participants did not specify the content they would provide, they were universally eager to partner with the Commission in providing that information.

A consensus evolved that the most effective place to educate investors would be at the firms’ websites. Most firms stated a preference for incorporating into their respective websites whatever information the Commission chooses to provide on its website rather than linking to the Commission’s site and sending customers off the firms’ sites. Because firms want to create “stickiness,”²⁰⁶ they are reluctant to send customers or visitors to another site. The firms hope that the longer they keep investors on their sites the more likely it is that they will engage in a transaction. They also feel strongly that they can build a community of repeat users around their websites.²⁰⁷

D. Conclusions and Recommendations

1. Conclusions

Based on the less frequent or nonexistent contact between investors and registered representatives, the need for developing useful, thoughtful and effective investor education materials is now more important than ever before. Although there is widespread agreement on the need to educate investors, there is a significant disparity among firms on the depth and scope of the materials provided and the location of those materials on their

²⁰⁴ Ivy Schmerken, *Discount Broker Creates Investment University*, WALL ST. & TECHNOLOGY, Feb. 1999, at 46.

²⁰⁵ *Id.*

²⁰⁶ Stickiness refers to the amount of time a viewer spends on a website.

²⁰⁷ In our view, providing interesting educational materials would help build that community and may attract other potential customers to their sites.

websites. In addition, firm practices differ on the timing of providing those materials and on the amount of resources they devote to developing investor education.

One of the more difficult challenges involved in providing investor education materials is deciding when and where to educate. Investors would not want firms to provide voluminous educational material as required reading right at the point where investors are attempting to place an order. After all, on-line trading is supposed to be quick. Being interrupted during the process of placing an order may dissuade investors from using certain on-line brokerage sites. To determine the best methods for educating, it would be helpful to develop more background information regarding investors' profiles, expectations, and behavior on-line. In addition, it would benefit the Commission to understand how firms and businesses involved in electronic commerce market their products and services on-line.

A separate issue is where to locate educational information on the firm's website to maximize investor benefits. Many firms currently make investor education materials generally available in discrete investor education sections on their websites. A strong argument can be made, however, for incrementally educating investors at key decisionmaking points of action. For example, firms could provide certain information at investors' discretion during the account opening process, or during order entry. Arguably, investors would benefit from educational materials tailored to the task at hand because it would give context to the information. Providing education during periods of on-line activity therefore presents certain challenges which can only be met by delivering the appropriate amount of information at the appropriate time.

In sum, the following conclusions can be drawn from the roundtables and other recent developments:

- Most firms seem to prefer educating customers through the firms' websites rather than sending the customer elsewhere for that education via a hyperlink. This education should result in informed investors and lower-risk clients for the brokerage firm.
- Chairman Levitt has urged²⁰⁸ firms to link to the Commission homepage and make that hyperlink readily accessible on their websites, but to date many firms have not yet done this.

By periodically copying useful materials from the Commission site and other industry association sites and devoting resources to developing their own on-line investor education materials, firms will help to produce knowledgeable investors. The timing of providing this information is critical in the on-line world. Educating the investor at key decisionmaking points of action may provide the most effective results. By utilizing

²⁰⁸ See Chairman Levitt, *Plain Talk About On-Line Investing*, *supra* note 191. In the Press Club speech, Chairman Levitt urged firms to link to the Commission website.

splash screens and pop-up messages or sidebar messages, firms can funnel information targeted to the specific action being taken. To avoid customer dissatisfaction, the technology exists to allow investors to opt not to receive educational messages in the future by equipping these dialogue boxes with a “click here if you do not wish to view these educational messages again” option.

Due to the attraction of portals as search engines and information providers, investors frequently obtain their financial information from these entities,²⁰⁹ which, because of their popularity, are useful venues for communicating investor education materials. Finally, some of the educational information, such as customer agreements and new account forms, should be made continuously available and written in plain English. Providing ongoing access to these documents and writing or rewriting them in plain English would significantly help educate investors and reduce confusion.

2. Recommendations

- The Commission should devote sufficient resources, including technology and personnel, to ensure that it can include more interesting and interactive educational tools on its website. On-line quizzes and various financial calculators are two examples of educational and entertaining learning tools. The Commission should continue to develop quizzes and identify and link to other sites with informative quizzes. The Commission should consider developing or contracting with an appropriate entity to expand the scope of materials covered by the existing on-line quiz and increase the visibility of the quiz and its accessibility to website visitors.
- The Commission should undertake a study of how investors process the information available to them through on-line brokerage firms. This study would form the basis for how and where the Commission devotes its investor education resources for on-line investors. This study should examine and provide conclusions on:
 - (1) the sources of financial information that investors rely on in making investment decisions;
 - (2) methods to develop effective investor education materials;
 - (3) ways to promote informed decisions regarding broker-dealer and company disclosure requirements;
 - (4) customer expectations at on-line versus off-line firms;
 - (5) the level of knowledge and experience of the average on-line investor;
 - (6) the trading frequencies of investors at on-line versus off-line firms;
 - (7) the success of currently existing disclosures and disclaimers; and
 - (8) how investors analyze risk and the segments of investors most at risk of poor investment decisionmaking.
- Once the study on investor behavior is completed, the Commission should initiate roundtables or focus groups on educating investors. A broad range of individual

²⁰⁹ See Portals section at pages 1-1.

investors and investor representatives should participate in these discussions which should: (1) develop examples of how firms, regulators, and other agencies could help investors learn more about on-line trading; (2) advise specific areas where investors should receive better education; (3) determine where the educational information should be provided; and (4) determine the appropriate timing for providing the investor with educational information.

- The Commission should continue to regularly notify the media and portals of major changes in its investor education materials. Notification has increased publicity thereby alerting more individuals to the existence of this information.²¹⁰

²¹⁰ See Jeff Brown, *On-line Investing is not a Lottery, so be Cautious in your Approach*, PHILADELPHIA INQUIRER, Oct. 10, 1999, at Q26; Reid Kanaley, *Investors should take Time to Learn how to use the Web*, PHILADELPHIA INQUIRER, Oct. 10, 1999, at Q14. Both articles endorse and recommend visiting the Commission's website to learn about investing.

VII. ON-LINE DISCUSSION FORUMS

A. General Background

On-line discussion forums are a popular feature of the Internet.²¹¹ At least three types of Internet “discussions” have evolved. First, numerous websites host discussion groups, or “chat rooms,” with real-time postings and viewing by participants on a wide variety of topics. Other websites contain “bulletin boards,” cyberspace message centers where comments concerning issuers, securities, industries, or any other facet of the markets can be posted and saved for viewing over an extended period of time. Finally, many websites offer moderated discussion forums, typically led by a real-time moderator and featuring a guest “expert.”

Users have participated in these on-line discussions forums to, among other things: (1) educate themselves about investing by exchanging ideas with others or reading the discussion “threads;” (2) act collectively;²¹² or (3) post information or opinions about an issuer.²¹³

The defining characteristic of these on-line discussion forums is that they enable large numbers of geographically dispersed individuals to gather and communicate on-line on a real-time and largely anonymous basis. Besides certain common ground rules, each site imposes slightly different rules for participation. Some sites do not monitor users’ participation, while other sites use volunteers as a sort of “neighborhood watch” patrol to maintain decorum and ensure topical discussions. Some sites charge a fee for posting but not for viewing. On some sites, users may post anonymously or register themselves under multiple aliases. Some financial sites do not permit discussion on certain securities topics.²¹⁴ On-line discussion forums can be found in America Online, Yahoo! Finance, Silicon Investor, TheStreet.com, Raging Bull, and Motley Fool, among others.

²¹¹ For the purposes of this section, “on-line discussion forums” include investment-related bulletin board systems, cyber message areas, newsgroups, Web discussion forums, and threads dedicated to talking about investing.

²¹² See, e.g., Diana B. Henriques, *Disgruntled Shareholders Unite*, N.Y. TIMES, Apr. 27, 1999 at C1 (bankrupt company’s shareholders discuss on-line representation in bankruptcy court); Alex Lash, *Disgruntled IBM Workers Organize On-line*, THE INDUSTRY STANDARD, Aug. 16, 1999 <<http://www.thestandard.com/articles/display/0,1449,5938,00.html>>.

²¹³ See, e.g., Ianthe Jeanne Dugan, *Amateur Stock Pickers Take on the Pros; Armchair Analysts Bring Predictions from Chat Rooms to New Internet Sites*, WASH. POST, Oct. 11, 1999, at A1 (new site, iExchange, ranks amateur stockpickers in chat rooms); *Doughnut Chain Buys Up Critical Web Site*, THE ASSOCIATED PRESS, Aug. 27, 1999 (Dunkin’ Donuts purchases a gripe site); *Bank Rage Moves to the Web*, BANK MARKETING INT’L., June 1999, at 13 (discussing popularity of bank gripe sites).

²¹⁴ See Paul Barr and Jennifer Tomshack, *Can We Talk?*, ON-LINE INVESTOR, Oct. 1999, at 33 (discusses features of on-line discussion forums).

A number of commentators have observed that these forums are an important element in building communities of users in cyberspace.²¹⁵ While these virtual communities may be reminiscent of real-world communities, the ability of participants to speak from “behind the screen” without fear of repercussion poses serious challenges for regulators. Anecdotal evidence suggests that postings in on-line discussion forums have caused volatility in some stocks.²¹⁶ At the heart of the controversy over these on-line discussion forums is the fact that readers may find it difficult to differentiate among accurate information, “noise” (*e.g.*, unsubstantiated opinions or rumors), or fraudulent misstatements.²¹⁷

1. Broker-Dealer Sponsored On-Line Discussion Forums

a. Background

While financial on-line discussion forums abound on the Internet, broker-dealer sponsored on-line discussion forums where investors can exchange messages are rare. E*Trade is a significant exception. A.B. Watley, Inc. also sponsors an on-line discussion forum where investors can chat with “sales associates” and other investors. Some on-line discussion forums also hyperlink to broker-dealers. For example, Raging Bull and Silicon Investor both hyperlink to Datek Online

²¹⁵ See generally JOHN HAGEL III AND JOHN ARMSTRONG, NET GAIN (1997) (discusses how merchants can expand markets by creating virtual communities); Neil Gross, *Building Global Communities*, BUS. WK. E.BIZ, Mar. 2, 1999, at EB 42.

²¹⁶ See, *e.g.*, Kenneth R. Gosselin, *CEO Fined in Web Case, Regulators Fault Way He Touted Firm*, THE HARTFORD COURANT, Sept. 4, 1999, at D1 (CEO of telecommunications company fined after he posted messages anonymously on Yahoo! Finance); Gretchen Morgenson, *Wild Rides on Stock Market Begin in Internet Chat Rooms*, N.Y. TIMES, Aug. 21, 1999, at A1 (chat room discussions impact on share prices); Rebecca Buckman, *SEC Studies “Momentum” Stock-Pick Sites On the Internet*, WALL ST. J., Nov. 2, 1999, at C1 (discusses web sites popular with day traders and other investors); *Short-Seller is Reinstated on Stock - Talk Web Site*, WALL ST. J., Oct. 12, 1999, at C23.

Anecdotal evidence also suggests that short sellers may engage in “cybersmear” campaigns in on-line discussion forums to drive down the price of a security. The absence of restrictions on selling certain securities short may magnify the impact of “cybersmear” campaigns in these securities. To respond to this concern, the Commission sought comment in its recently issued concept release on the short sale rule regarding whether the NASD should extend the short sale restrictions to smaller capitalization securities. See Short Sales, Exchange Act Release 42,037 (Oct. 20, 1999), 64 Fed. Reg. 57,996 (1999).

²¹⁷ See, *e.g.*, *Company Blames Stock Drop on Net Rumors*, ZDNET, June 3, 1998 <http://www.zdnet.com/zdnn/stories/zdnn_display/0,3440,2109614,00.html> (chat room rumor about SEC investigation of issuer simultaneously with share price decline).

E*Trade's on-line discussion forum allows members²¹⁸ to discuss specific securities, categories of securities (*e.g.*, Internet High Flyers, Active Trader, Beer Budget Investors, Long Term Investments) and industries, as well as general investment news categories. E*Trade also sponsors live events where users can engage in interactive conversations with event leaders.

A variety of federal securities law provisions may apply to on-line discussion forums.²¹⁹ Under the antifraud provision of Exchange Act Section 10(b) and Rule 10b-5 thereunder, the Commission has brought a number of enforcement cases that involved a component of posting in on-line discussion forums.²²⁰ One of the most well-known

²¹⁸ E*Trade requires only that an individual submit his or her name and address to become an E*Trade "member," (*i.e.*, one need not open an account to become a member eligible to participate in E*Trade's on-line discussion forums). E*Trade's on-line discussion forums are subject to the following conditions, among others: (1) users must register; (2) users may only maintain one active registration at any time although E*Trade does not verify the name and address received from non-account holding members; (3) E*Trade's "hosts," who are independent contractors, keep conversations on point and stimulate discussion; (4) E*Trade does not consider itself to be a publisher or speaker of any information provided to users; (5) users agree that postings are not attributable to E*Trade; (6) E*Trade does not prescreen or edit messages although it may monitor them; (7) certain behavior is impermissible, including a) impersonating someone or lying about a user's affiliation, b) offering to buy or sell securities, or c) posting false or misleading statements; (8) members may not discuss securities for which E*Trade serves as an underwriter or selling group member and securities that are not listed on an exchange or Nasdaq NMS.

²¹⁹ For example, depending on the facts and circumstances, the Commission could bring an action under the antifraud provisions of the federal securities laws. The Commission could also bring an action against posters who violate the proxy solicitation rules. The Commission recently relaxed restrictions on communications in mergers and acquisitions, as well as updated and harmonized related disclosure rules. *See* Securities Act Release No. 7760 (Nov. 10, 1999), 64 Fed. Reg. 61,408 (1999). The Commission could also bring an action against a company that violates the prohibitions of Section 5 of the Securities Act of 1933 by sponsoring or engaging in conversation in an on-line discussion forum while in registration depending on what was said. A person giving advice in an on-line discussion forum also could be acting as an unregistered investment adviser. The Supreme Court held in *Lowe v. SEC*, however, that the publisher of a regularly disseminated securities newsletter containing nonpersonalized investment and commentary may fall within the exclusion from registration as an adviser found in Section 202(11)(D) of the Investment Advisers Act of 1940. 472 U.S. 181 (1985); *see also*, *Taucher v. Born*, Civ. Act. No. 97-1711 (RMU), 1999 U.S. Dist. LEXIS 9304, June 21, 1999.

²²⁰ 15 U.S.C. § 78j (1999). Section 10(b) of the Exchange Act, and Rule 10b-5 thereunder, prohibits any person from employing any device, scheme or artifice to defraud; making any untrue statement of a material fact, or omitting to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; or engaging in any act, practice or course of business which operates or would operate as a fraud or deceit upon any person in connection with the purchase or sale of any security. The elements of a Commission action under Section 10(b) of the Exchange Act and Rule 10b-5 thereunder are: (1) a misstatement or omission; (2) of material fact; (3) made in connection with; (4) the purchase or sale of securities. The defendant must also act with scienter. *Ernst & Ernst v. Hochfelder*, 425 U.S. 185 (1976).

actions involved a PairGain Technologies employee who posted a false message on a Yahoo! Finance message board that PairGain was being acquired by an Israeli company.²²¹ The posting was linked to a phony Bloomberg News Service page reporting the “acquisition.” The price of PairGain stock rose 31 percent on heavy volume before the hoax was exposed. The stock then fell 20 percent.

Broker-dealers and their registered representatives may be held responsible for what they say regarding securities products and services when participating in on-line discussion forums.²²² These communications must comply with NASD Rules, including NASD Conduct Rule 2210 (Communications with the Public), and the federal securities laws. Rule 2210 generally requires broker-dealers to accurately describe any security or service offered, including material information, such as risks and cost.²²³ With some exceptions, NASD members must provide a copy of the communication to the NASD upon request.²²⁴ In most cases, firms must review postings made by registered representatives prior to use.²²⁵ Depending on its content, firms also may have to file scripted material with the NASD in accordance with the requirements for sales literature

²²¹ SEC v. Gary D. Hoke, Jr., Litigation Release No. 16117, 1999 LEXIS 781 (Apr. 21, 1999); *see also*, SEC v. Comparator Systems Corp., Litigation Release No. 14927, 1996 LEXIS 1510 (C.D. Ca. May 31, 1996) (defendants sold tens of millions of shares of Comparator stock while inflating assets on its balance sheet and misrepresenting ownership of fingerprint identification technology; shares increased 30-fold in three days and the market capitalization jumped to almost \$1 billion overnight while investors were posting messages in on-line discussion forums); SEC v. Charles O. Huttoe, et al., Litigation Release No. 15571, 1997 SEC LEXIS 2421 (Nov. 25, 1997) (CEO of Systems of Excellence distributed approximately eleven million shares of unregistered securities to nominees under his control and issued misleading press releases to manipulate the share price; the shares were hyped in thousands of Internet postings); SEC v. Uniprime Capital and Alfred J. Flores, Litigation Release No. 16252, 1999 SEC LEXIS 1613 (S.D.N.Y. Aug. 13, 1999) (the Commission charged Uniprime and a president of a subsidiary with fraudulently touting a “major breakthrough” in treating HIV; the share price rose from \$0.625 to as high as \$7.95; Uniprime became one of the most discussed securities on Raging Bull, with 10,000 messages posted by Aug. 1999); *see also*, Timothy L. O’Brien, *Stock Hucksters Thrive on the Web*, N.Y. TIMES, Aug. 23, 1999, at A1 (discussing alleged Uniprime fraud). For a more complete list, including a brief description of the Commission’s cases involving postings in on-line discussion forums, *see Appendix 3*.

²²² *See* NASD, Internet Guide for Registered Representatives <<http://www.nasdr.com/4040.htm>> [hereinafter *Internet Guide*].

²²³ NASD Rule 2210, NASD MANUAL (CCH) (1999). *See also* Member Firms Seek Guidance on Public Appearances, NASD Regulatory & Compliance Alert (Sept. 1997) <<http://www.nasdr.com/pdf-text/rca0997.txt>> [hereinafter *Member Guidance*].

²²⁴ For other applicable rules, *see Internet Guide*, *supra* note 222; *see also* NYSE Rule 472, NYSE CONSTITUTION AND RULES (1999).

²²⁵ *See Member Guidance*, *supra* note 223.

and advertising.²²⁶ Broker-dealers must supervise their registered representatives' participation in on-line discussion forums.²²⁷

The NASD also has issued guidance for broker-dealers that hyperlink to other websites.²²⁸ Among other situations, the NASD generally will not hold the member responsible for the content on a third-party website when a broker-dealer provides an ongoing hyperlink to that site. However, a member may not establish a hyperlink "to a site that the member knows or has reason to know contains false or misleading information about the member's products or services."²²⁹

b. Roundtable Participants' Views

Roundtable participants generally disapproved of broker-dealer sponsored on-line discussion forums. One roundtable participant acknowledged that broker-dealers may have an incentive to create on-line discussion forums for three reasons: (1) broker-dealers want to create a sense of "community" on their websites for marketing purposes; (2) broker-dealers want to retain users on their websites because, once users go to another website, they may lose business; and (3) if customers talk on-line just to other customers rather than to the public at large they may have more confidence in the speakers and believe that the site contains higher quality information.

Most of the broker-dealers who participated in the roundtables generally did not believe they should be sponsoring on-line discussion forums on their websites because of concerns about incurring legal or reputational risk. At one end of the spectrum, a participant stated that a broker-dealer sponsoring or associating with on-line discussion forums considers itself as nothing more than a conduit for information, similar to an ISP.²³⁰ At the other end of the spectrum, a participant contended that a broker-dealer

²²⁶ NASD Rule 2210, NASD MANUAL (CCH) (1999).

²²⁷ See *Internet Guide*, *supra* note 222.

²²⁸ See Letter from Thomas Selman, NASD, to Craig S. Tyle, General Counsel, ICI (Nov. 11, 1997) <http://www.nasdr.com/2910/2210_01.htm>; see also, Ask the Analyst about Electronic Communications, NASD Regulatory & Compliance Alert (Apr. 1996) (broker-dealer should not hyperlink to websites that it knows contain misleading information about the broker-dealer's products or services).

²²⁹ The Division of Corporation Finance is currently formulating an interpretive release for consideration by the Commission which may include guidance for issuers that hyperlink to other websites.

²³⁰ An ISP is generally shielded from liability for defamatory postings in on-line discussion forums that it sponsors. After 1996, on-line discussion forums sponsors may be insulated for defamatory statements posted in their forums by the Good Samaritan provision of the Communications Decency Act of 1996.

Congress passed the Good Samaritan immunity in response to a court case that held Prodigy, an ISP, liable as a publisher for defamation because it exercised a degree of editorial control over the

sponsoring a bulletin board may be accountable for suitability determinations if any recommendations are made on that bulletin board. Another broker-dealer disagreed with this position, although it conceded that a broker-dealer that establishes and runs a bulletin board “owns it.”

One on-line broker-dealer participant indicated that his firm has been considering where to locate an on-line discussion forum, assuming it decides to have one. He noted his firm’s skepticism of on-line discussion forums is due to the lack of control over the information posted. He believes that basically two alternatives exist for firms: (1) put the on-line discussion forum within the firm’s website so that only firm customers who log in can use it; or (2) place it outside of the firm’s website so that anyone can read it. Currently, his firm favors placing it within its site to maintain some control and avoid having its name associated with potentially misleading information from an unknown origin.

The participants stated that they were unclear about the extent to which a broker-dealer would become liable for the content of information posted on an on-line discussion forum that it sponsors. One participant asked whether a broker-dealer that monitors an on-line discussion forum becomes liable for that information so that it assumes a duty to correct misinformation posted there. The participant then questioned whether the broker-dealer incurred any liability for failing to correct the misinformation promptly. He questioned what “prompt” would mean in cyberspace. For example, in the participant’s hypothetical, would it be “prompt” if the broker-dealer took ten minutes to correct a posting that an issuer’s projected earnings would be \$10 a share when the broker-dealer’s own research shows that they would be \$5 a share?

2. Issuers

a. Background

Issuers have become increasingly concerned that on-line postings may influence their stock price.²³¹ Empirical research regarding the effect of postings in on-line

postings on its service. *Stratton Oakmont v. Prodigy*, 23 Media L. Rep. 1794 (N.Y. Sup. Ct. 1995). *But see* *Cubby, Inc. v. Compuserve, Inc.*, 776 F. Supp. 135 (S.D.N.Y. 1991) (held that ISP that did not exercise editorial control over the on-line newsletter where the allegedly defamatory statements appeared should not be held liable as a “publisher”).

²³¹ Jerry Useem, *!#&L% Day Traders: Feed 'Em or Freeze 'Em?' Which Tactic Hurts Investors More?*, FORTUNE, May 24, 1999, at 318; Martin Stone, *Internet Libel Suits Bedevil Canadian, U.S. Courts*, NEWSBYTES PM, May 26, 1999 (Canadian court brings first case stemming from criminal libel for postings made on an Internet website); Blake Bell, *Dealing with False Internet Rumors: A Corporate Primer*, WALLSTREETLAWYER.COM, Dec. 1998, at 1 (discussing techniques that corporations may follow for dealing with cybersmears); Broc Romanek, *Employees as Shareholders in the Cyber Age*, INSIGHTS, May 1999, at 15 (discussing techniques for addressing employees’ use of on-line discussion forums); Richard Rapaport, *PR Finds a Cool New Tool*, FORBES, Oct. 6, 1997, at 100 (discussing public relations techniques in the age of the Internet).

discussion forums, however, is scarce. One study evaluating the effect of misleading representations by sellers on buyer's behavior found that misrepresentations, or "cheap talk," allowed sellers to profit at the expense of buyers.²³² A draft study by a University of Michigan Business School professor provides the most insight into the effects of postings on on-line discussion forums.²³³ His study finds a strong positive correlation between overnight message postings and next-day trading volume and stock price volatility.²³⁴ A study that examined the information content of takeover rumors reported in the Wall Street Journal columns "Heard on the Street" and "Abreast of the Markets" found that the market tends to overreact to these rumors in moving the stock price.²³⁵

Not all rumors are inaccurate. A study that compared "whisper" forecasts to earnings per share forecasts from First Call, a commercial source of earnings forecasts, found that whisper forecasts were on average more accurate.²³⁶

So what should an issuer do? Correcting information creates potential liability but ignoring false or incorrect information could adversely affect the issuer's stock price. Right now, issuers generally take several approaches to addressing misleading postings, including: (1) ignore them; (2) monitor them or hire a firm to do so;²³⁷ (3) sue the

²³² University students were given assets of varying quality (low, medium, or high) and allowed to engage in "cheap talk" before transaction prices were determined. Cheap talk in this setting involved the seller disclosing the truth, lying, or being vague about asset quality. For example, a seller with a low quality asset could state that it was either of a low, medium, or high quality, but could not state that it was only medium or high quality. The gains in this situation accrued wholly to the buyers. Efficiency improved when the sellers were prohibited from lying although they were allowed to tell the truth or be vague. Robert Forsythe et al., *Cheap Talk, Fraud and Adverse Selection in Financial Markets: Some Experimental Evidence*, 12 REV. OF FINANCIAL STUD. 3, at 481-518 (Spring 1999).

²³³ Peter D. Wysocki, *Cheap Talk on the Web: The Determinants of Postings on Stock Message Boards* (1998) (Working Paper No. 98025. Univ. of Michigan School)
<http://papers.ssrn.com/paper.taf?ABSTRACT_ID=160170>.

²³⁴ *Id.*

²³⁵ This study also suggests that a strategy of short selling after rumor publication may prove profitable. Terry Zivney et al., *Overreaction to Takeover Speculation*, 36 Q. REV. OF ECON. AND FIN. 1, Spring 1996, at 89-115.

²³⁶ "Whisper" forecasts are unofficial earnings forecasts circulated before official company announcements. Mark Bangoli, et al., *Whisper Forecasts on Quarterly Earnings Per Share*, 28 J. OF ACCT. & ECON. 1 (forthcoming 1999); Ed Leefeldt, *Whispers*, BLOOMBERG, Aug. 1999, at 28 (discusses accuracy of whisper numbers); Marcia Vickers, *Psst! Want the CPI Number?*, BUS. WK., Oct. 18, 1999, at 182 (discusses web sites that post whisper earnings).

²³⁷ Rebecka Buckman, *Gumshoe Game on the Internet*, WALL ST. J., July 27, 1999, at B1 (companies are hiring detectives to unmask on-line detractors); Matt Ritchel, *Rumor Brigade Scours Web*, SAN DIEGO UNION-TRIB., Mar. 23, 1999, at 8.

anonymous “John and Jane Does,” to uncover their identities;²³⁸ (4) correct the misleading statement where it originally appeared;²³⁹ or (5) contact the SEC or appropriate SRO.

An issuer generally has no obligation to comment on rumors in the marketplace that affect its stock price unless the rumors are attributable to the issuer.²⁴⁰ The same is true with respect to rumors on the Internet. Practitioners generally advise their clients to refrain from commenting on rumors, electronic or otherwise, regardless of the nature and extent of the rumor. Counsels’ primary concern is that the company’s response to a false rumor may result in a duty to correct or update the information at a later time.²⁴¹ In addition, an issuer that corrects misinformation in the same on-line discussion forum where it appeared may unintentionally selectively disclose material nonpublic information or provide inaccurate information which would serve as a basis for liability for those who acted on the incorrect information.²⁴²

²³⁸ See, e.g., Michael Moss, *CEO Exposes, Sues Anonymous On-line Critics*, WALL ST. J., July 7, 1999, at B1 (CEO of HealthSouth Corp. sued a John Doe who claimed that he may be committing billing fraud and engaged in wife swapping); Neil Roland, *M.H. Meyerson Sues Internet Users, Yahoo! Over Chat Messages*, BLOOMBERG, May 20, 1999 (broker-dealer sued anonymous posters who accused the CEO of stock manipulation, insider trading, and money laundering); *Kaiser, Lilly Industries Sues Anonymous Internet Critics*, AP NEWSWIRE, July 20, 1999 (Kaiser Lilly); *Banks Sue Over Internet Rumors*, AP ON-LINE, July 28, 1999 (LEXIS, News Library, Curnws File); see also *Columbia Ins. Co. v. Seescandy.com*, 185 F.R.D. (plaintiff must meet a four part test in order to compel discovery of the true identity of an Internet tortfeasor). A group of John Does who have been sued have even established their own message board on Yahoo! to discuss their experiences. See <<http://clubs.yahoo.com/clubs/johndoes?s>> (visited Nov. 14, 1999).

²³⁹ See, e.g., Michelle Leder, *Stemming the Tide of Touts on Those Stock Message Boards*, N.Y. TIMES., Feb. 21, 1999, at 9.

²⁴⁰ See *State Teachers Retirement Board v. Fluor Corp.*, 654 F.2d 843 (2d Cir. 1981).

²⁴¹ Some commentators have noted that there may be advantages to engaging in an ongoing dialogue with individual investors, such as: (1) providing greater access to the issuer, (2) strengthening ties with investors, (3) keeping investors informed, (4) countering any rumors or misinformation in the marketplace, and (5) keeping the issuer informed of investors’ opinions. At least two issuers presently participate in Internet discussion groups with what they view to be positive results. See Kenneth Li, *Zamba Exec Wants To Tell You What’s New*, THE INDUSTRY STANDARD, Sept. 27, 1999, at 54; Paul C. Judge, *Internet Evangelist*, BUS. WK., Oct. 25, 1999, at 140 (CEO of Internet holding company CMGI, Inc., discussed his company on Yahoo! Finance over a six-day period).

²⁴² At least one foreign stock exchange, the Toronto Stock Exchange, has issued guidance for issuers regarding the appropriate forum to correct rumors.²⁴² This guidance urges companies to refrain from participating in on-line discussion forums to dispel rumors. Instead, it provides that the company should issue a news release to ensure widespread dissemination of its corrective statement.

Under the federal securities laws, to the extent that an issuer posts factual material information on its website, the issuer may have a duty to correct or update.²⁴³ Generally, however, there is no duty to correct statements issued by a third party unless the statements are attributable to the issuer.²⁴⁴

Still, the NYSE admonishes issuers that if rumors occur at a time when the issuer is considering significant corporate developments and the rumors are “false or inaccurate, they should be denied promptly or clarified. A statement to the effect that the company knows of no corporate developments to account for the unusual market activity can have a salutary effect.”²⁴⁵ SRO policies address how listed companies should disseminate material information to the public. For example, NYSE-listed companies are “expected to release quickly to the public any news or information which might reasonably be expected to materially affect the market for its securities” and “act promptly to dispel unfounded rumors which could result in unusual market activity or price variations.”²⁴⁶ The NYSE also requires its listed companies to disseminate press releases on material developments by the “fastest available means.”²⁴⁷ At a minimum, NYSE-listed companies must distribute press releases to specified major news services.²⁴⁸ The NASD requires Nasdaq-

²⁴³ See, e.g., *Ross v. A.H. Robins Co., Inc.*, 465 F. Supp. 904 (S.D.N.Y.), *rev'd in part and remanded on other grounds*, 607 F.2d 545 (2d. Cir. 1979), *cert. denied*, 446 U.S. 946 (1980); *Naye v. Boyd (CCH)* ¶92,980 (W.D. Wash. 1986); *SEC v. Shattuck Denn Mining Corp.*, 297 F.Supp. 470 (S.D.N.Y. 1968); *Fischer v. Kletz*, 266 F. Supp. 180 (S.D.N.Y. 1967). See e.g. *Hilson Partners Ltd. Partnership v. Adage, Inc.*, 42 F.3d 204 (4th Cir. 1994); *Evanowski v. Bankworchester Corp.*, 788 F.Supp. 661 (D. Maine 1991).

²⁴⁴ “Related to the question of whether an issuer has a duty to correct or update its own statements is the question of whether an issuer has a duty to correct or update misleading statements made about it by third parties, such as by reporters or financial analysts. The nearly unanimous view of courts that have considered this question is that issuers ordinarily have no such duty.”

Robert H. Rosenblum, *An Issuer's Duty Under Rule 10b-5 to Correct and Update Materially Misleading Statements*, 40 Cath. U.L. Rev. 289, 291 (1991); see also *Electronic Specialty Co. v. International Controls Corp.*, 409 F.2d 937 (2d Cir. 1969); *Zucker v. Sable*, 426 F. Supp. 658 (S.D.N.Y. 1976).

²⁴⁵ NYSE LISTED COMPANY MANUAL § 202.03 (1998). See also Rule 4310(a)(15-16), NASD MANUAL (CCH) (1999); AMEX COMPANY GUIDE (401-405).

²⁴⁶ NYSE LISTED COMPANY MANUAL, *supra* note 245, § 202.05.

²⁴⁷ *Id.* § 202.06(C). The NYSE and NASD provide non-exclusive examples of what news items should be considered to be material. See *id.* § 202.06(A); *Nasdaq Marketplace Rules Update: Nasdaq Clarifies Rule on Disclosure of Corporate Information Over the Internet (Rule IM-4120-1)*, NASDAQ-AMEX BULLETIN Apr. 1999, at 1.

²⁴⁸ See NYSE LISTED COMPANY MANUAL, *supra* note 245, at § 202.06(C).

listed companies to promptly disclose any material developments through the news media.²⁴⁹

Issuers are growing increasingly concerned about employees posting company information in on-line discussion forums. One-third of companies represented by the National Investor Relations Institute (“NIRI”) have adopted policies that prohibit employee participation in such forums.²⁵⁰ Of those, two-thirds have enforcement mechanisms to address employee violations. More than one-half of the companies that have adopted such policies have done so within the past year.

b. Roundtable Participants’ Views

One participant noted that most issuers are starting to monitor postings concerning their companies but that only three percent of issuers in his organization say that they will respond to rumors arising in on-line discussion forums.²⁵¹ His organization urges issuers not to respond to on-line discussion forum rumors because it is concerned about creating an ongoing duty to correct misinformation in on-line discussion forums.²⁵² However, he recognizes the difficulties of a “no comment” policy -- particularly for smaller issuers. He knows of one recent situation in which an issuer learned that someone was posing as its CEO and making earnings projections in a on-line discussion forum. The issuer’s counsel advised the issuer to deny the posting in the same on-line discussion forum by stating that the current poster was the real CEO and that the company, as a matter of practice, did not project earnings.

Several participants suggested that one way to reduce the potential for on-line hype about a company’s stock is to require any person who posts information about a public issuer to register on the site under his or her true identity. At least one First

²⁴⁹ *Qualification Requirements for Domestic and Canadian Securities*, 1 NASD Manual (CCH), at 5273 (Feb. 1999). Pursuant to NASD Interpretation IM-4120-1, Nasdaq-listed companies should disclose material information in the form of a press release to one of the traditional news services. See NASDAQ-AMEX BULLETIN, *supra* note 247.

²⁵⁰ NIRI, *Electronic and Telephone Communications Systems Policy*, July 1, 1999 <<http://www.niri.org/publications/alerts/ea070199.cfm>>.

²⁵¹ This is consistent with a 1998 survey of corporate disclosure practices which found that 52 percent of companies do not comment on market rumors under any circumstances and only two percent respond to false rumors spread through on-line discussion forums. *Proactive Corporate Counsel Recommended by ABA Panelists*, 31 SECURITIES REG. AND LAW REP. 1113 (Aug. 20, 1999).

²⁵² This guidance appears to be premised on the Supreme Court decision in *Basic v. Levinson* that, absent special circumstances, there is no duty to disclose preliminary merger negotiations. In that decision, the Court observed that, “To be actionable, of course, a statement must be misleading. Silence, absent a duty to disclose, is not misleading under Rule 10b-5. ‘No comment’ statements are generally the functional equivalent of silence.” *Basic v. Levinson*, 485 U.S. 224, 239 nn. 17 (1988).

Amendment practitioner has recommended caution with this approach because the Supreme Court has opined that the First Amendment right of free speech includes the right to remain anonymous, at least with respect to political speech.²⁵³

B. Conclusions and Recommendations

1. Conclusions

On-line discussion forums have been variously described as the cyberspace equivalent to writing on the bathroom wall, chatter at a cocktail party, and useful sources for investor education. Anecdotal evidence suggests that on-line discussion forums affect stock price volatility. In addition, the anonymous nature of postings may create a significant impediment to developing quality communities. While Commission staff generally unmask fraudsters (who believe that they are acting anonymously) because they leave footprints in cyberspace, it is very difficult for average investors to differentiate among quality information, “noise,” and outright fraud. Sponsors exercise varying degrees of control over on-line discussion forums, ranging from very little to hiring a cyberspace “neighborhood watch” to patrol the forums. Issuers increasingly respond to the content of false or misleading postings by filing “John and Jane Doe” suits to subpoena information that discloses the posters’ identities.

To date, concerns over legal and reputational risk have made broker-dealers generally reluctant to sponsor on-line discussion forums. An open question is whether broker-dealers provide some benefit to investors by sponsoring such forums or whether broker-dealers should not lend these forums the imprimatur of legitimacy.

Issuers also should look at the use of Internet discussion groups by their employees. An employee participating in an on-line discussion may, intentionally or inadvertently, disclose material non-public information with the attendant risk that the disclosure may be attributed to the issuer. Because of the possibility that their employees’ postings may contain incomplete or misleading information, issuers should consider adopting and actively enforcing policies monitoring the use of electronic forms of communications by their employees. These policies should address: (1) whether Internet postings about the issuer are permitted; (2) limitations on the types of postings allowed; and (3) the penalties associated with violating the policies.

2. Recommendations

²⁵³ Joseph McIntyre v. Ohio Elections Commission, 514 U.S. 334 (1995) (Ohio statute banning distribution of anonymous political campaign literature held not justified on First Amendment grounds, by state interest in preventing fraud and libel or informing the electorate); *See also* ACLU v. Miller et al., Civ. Action No. 1:96-cv-2475-MHS (N.D. Ga. complaint filed Sept. 24, 1996) (court granted plaintiff’s motion for a preliminary injunction and denied defendants’ motion to dismiss action against statute that criminalizes communicating under a false identity through a computer network). For a discussion of the benefits of, and the methods for, communicating anonymously, *see* ACLU v. Miller (complaint) <http://www.aclu.org/issues/cyber/censor/GACOMPLT.html>.

- Anecdotal evidence suggests that on-line discussion forums affect stock price volatility. Because there is no study confirming these observations, the Commission and other interested researchers are encouraged to study the effect of postings on on-line discussion forums on stock price volatility. Evidence of widespread volatility, particularly among specific categories of securities, may be useful in considering these issues and any potential Commission action.
- The Commission should encourage broker-dealers that host on-line discussion forums to consider adopting best practices, including: (1) requiring posters to register; (2) encouraging posters to disclose their stock positions; (3) monitoring the on-line discussion forums; (4) using notices to advise investors not to rely on on-line discussion forums as their sole or primary source of investment information; and (5) disclosing the identity and professional experience of the event leaders.

VIII. PRIVACY

A. Background

The development of increasingly sophisticated data mining techniques and the rise of financial conglomerates has recently pushed the issue of privacy of personal information²⁵⁴ onto center stage. The issue arose as a flashpoint in the debate over financial modernization legislation, the Gramm-Leach-Bliley Act,²⁵⁵ and in negotiations between the United States and the European Union over protecting personal data.²⁵⁶ Financial institutions are developing technology to observe customers' behavior, combine it with their transaction history, and create a detailed customer profile in order to manage customer relationships. According to Meridien Research, financial firms spent over \$1.6 billion in "customer relationship management" software in 1998 and are expected to spend around \$2.5 billion by 2003.²⁵⁷ The financial services industry has argued that developing such synergies would be impossible if individuals were allowed to control the use of their personal information. One of the most-often cited reasons for creating financial conglomerates is the ability to develop "synergies" in order to cross-market and sell products from different product lines to customers.

In addition to commercial intrusion, individuals also are concerned about governmental intrusion into their privacy. Two recent debates demonstrate the difficulty of counterbalancing privacy with other governmental interests, such as preventing money laundering. In 1998, federal banking regulators proposed new "know your customer" regulations for banks and their affiliates, including bank-affiliated broker-dealers, that would have required banks to give heightened scrutiny to the financial transactions of their customers and report suspicious

²⁵⁴ The Federal Trade Commission ("FTC") defines "personal information" to include two broad information categories: (1) information that can be used to identify consumers, such as name, postal or e-mail address ("personal identifying information"); and (2) demographic and preference information, such as age, gender, income level, hobbies, or interests, that can be used either in aggregate, non-identifying form for purposes such as market analysis, or in conjunction with personal identifying information to create detailed profiles of consumers. FTC, PRIVACY ON-LINE: A REPORT TO CONGRESS (1998) <<http://www.ftc.gov/reports/privacy3/toc.htm>> [hereinafter *Privacy Report*]. See also Paula Duyer, *Suddenly, Financial Privacy is a Hot-Button Issue*, BUS. WK., June 21, 1999, at 51. This section does not generally address privacy initiatives by other financial regulators. See also, *infra* note 271.

²⁵⁵ Gramm-Leach-Bliley Act, Pub. L. No. 106-102, 113 Stat. 1338 (1999).

²⁵⁶ See European Union Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data, Off'l J. No. LL281, 1995 (Directive prohibits transfer of personal information from any source in the European Union to any country without "adequate" privacy protections, as determined under the Directive); Draft International Safe Harbor Principles (Apr. 19, 1999) <<http://www.ita.doc.gov/ecom/sphrin/html>>.

²⁵⁷ Chuck Epstein, *Financial Services Firms Take Aim at Customers*, WALL ST. & TECHNOLOGY, Sept. 1999, at 36. See also Trends section at pages 1-1.

transactions.²⁵⁸ In response to over 300,000 negative comment letters, the federal banking regulators withdrew the proposal.

Investors have not lodged a significant number of complaints with the Commission against broker-dealers for violating their privacy expectations. Out of 19,250 complaints against broker-dealers that the Commission received between February 8 and October 15, 1999, only 25 alleged violations of privacy or breaches of security involving personal information.

B. Privacy Concerns Raised in an On-Line Environment

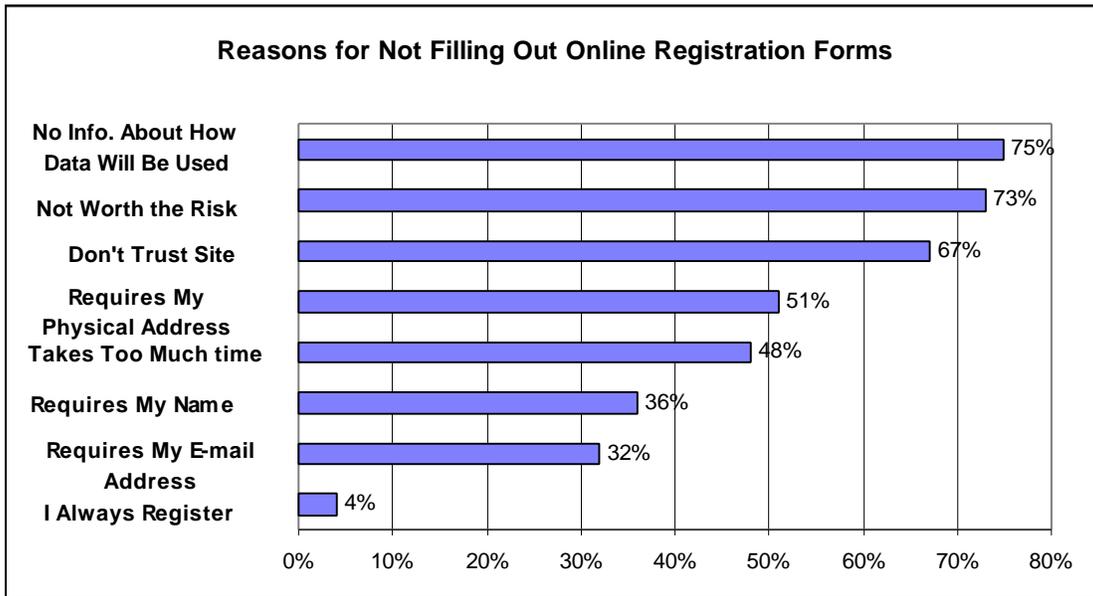
A 1999 poll found that more than 87 percent of Internet users were either somewhat or very concerned about their personal privacy while on-line.²⁵⁹ As the following chart demonstrates, web users are reluctant to give personal information to websites.²⁶⁰

²⁵⁸ See, e.g., “Know Your Customer” Requirements, 63 Fed. Reg. 67,524 (1998); “Know Your Customer” Requirements, 64 Fed. Reg. 15,137 (1999) (withdrawal of proposed rulemaking).

²⁵⁹ AT&T Labs-Research Technical Report, Cranor, Reagle & Ackerman, *Beyond Concern: Understanding Net Users’ Attitudes About On-Line Privacy* (1999) <[http://www.research.att.com/projects/privacy study](http://www.research.att.com/projects/privacy%20study)>. See also, Mary Mosquera, *Most Net Users Worry About Privacy*, TECHWEB NEWS, June 23, 1998 (LEXIS, News Library, Curnws File); Bill Orr, *NCR to Banks: Privacy is Good for Business*, ABA BANKING JOURNAL, June, 1999, at 68 (citing various polls on privacy).

²⁶⁰ For further information regarding privacy practices of websites, see FTC, SELF-REGULATION AND PRIVACY ON-LINE: A REPORT TO CONGRESS (1999) <<http://www.ftc.gov/os/1999/9907/privacy99.pdf>>; Mary J. Culnan, GEORGETOWN INTERNET PRIVACY POLICY SURVEY: REPORT TO THE FEDERAL TRADE COMMISSION (1999) <<http://www.msb.edu/faculty/culnanm/gippshome.html>>; FRB, FDIC, OCC, OTS, WEB SITE PRIVACY REPORT (1999) <<http://www.occ.ustreas.gov/ftp/release/99-103a.pdf>>. See also, 1998 FTC Privacy Report, *supra* note 254.

Chart VIII-1



From an on-line poll of 5,965 surfers. Source: "Tenth Annual WWW User Survey," October, 1998, Georgia Institute of Technology's Graphic, Visualization, and Usability Center.

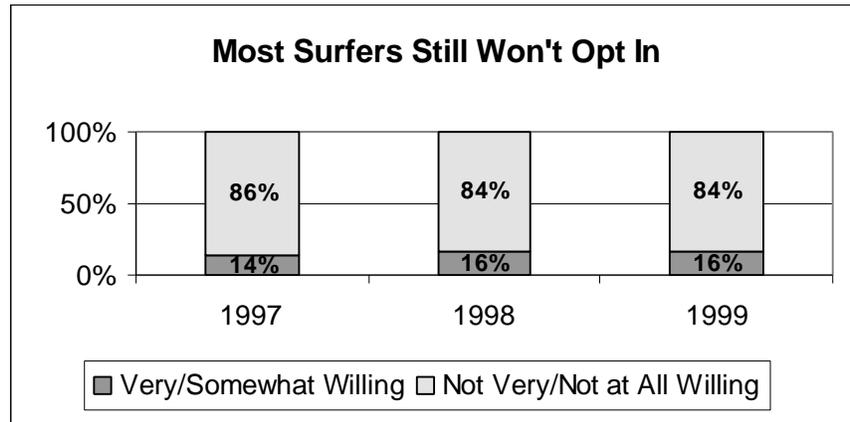
Reprinted with permission from The Industry Standard

In addition to filling out on-line registration forms, website operators can get information on their visitors by using "cookies." "Cookies" are text files that collect information about a web user's visit to a website. They are placed on the user's computer and only that website's server can read them. They also can be used to develop a visitor profile.²⁶¹

As demonstrated by the following chart, web users also seem to be reluctant to give information in exchange for targeted advertising:

²⁶¹ Edward C. Baig, Marcia Stepanek, and Neil Gross, *The Internet Wants Your Personal Information. What's in it for you?* BUS. WK., Apr. 5, 1999, at 84; Saul Hansell, *As Web Sites Track Users' Habits, Privacy Advocates Win*, INT'L. HERALD TRIB., Aug. 17, 1998, at 11; Robert B. Libbon, *Is Public Concern About Privacy Holding Up Commerce on the Internet?*, AM. DEMOGRAPHICS, Feb. 1999, at 35.

Chart VIII-2



From a telephone survey of 447 randomly selected U.S. on-line users

Source: Harris Poll for Business Week

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The issue appears more complex than polls would suggest.²⁶² Consumers appear willing to disclose personally identifiable information when they believe that they are receiving something of value in return, such as free long-distance service, personal computers, and Internet access. Thus, while consumers do not want to give away their personal information, they seem willing to exchange it for a benefit.²⁶³

²⁶² For an opposing view on the issue of privacy, see Kenneth Neil Cukier, *Is There a Privacy Time Bomb*, RED HERRING, Sept. 1999, at 91 (as consumers continue to give out their personal data, it appears that the Internet's threat to privacy may be exaggerated); Jonathan Franzen, *Imperial Bedroom*, THE NEW YORKER, Oct. 12, 1999, at 48 (the real problem with privacy is that there is too much of it).

²⁶³ Mark Leibovich, *Ads' Message: Talk Cheap; Callers Endure Pitches, Phone for Free*, WASH. POST, Jan. 20, 1999, at A1 (Broadpoint offers free long-distance services to customers who listen to targeted ads). Matt Richel, *Despite Privacy Concerns, Free PC's Attract Many Consumers and Schools*, N.Y. TIMES, Feb. 25, 1999, at G7 (when Free-PC announced that it would give away 10,000 computers, more than one million persons signed up); Elise Ackerman, *Money For Nothing and the Web for Free*, U.S. NEWS & WORLD REP., Sept. 13, 1999, at 3 (discusses Internet giveaways in exchange for personal information); NCR: *Europeans Willing to Provide Personal Data*, May 28, 1999 <<http://www.nua.ie/surveys/?f=VS&art=905354932&rel=true>>.

Recent incidents in which consumers perceived violations of their privacy both on-line and off-line have also raised awareness of the issue:²⁶⁴

- The Minnesota Attorney General's Office sued U.S. Bancorp alleging that the bank illegally sold credit histories and other customer information to a telemarketer even though it told customers that it did not do so.²⁶⁵
- Employees of NationsBank provided its affiliated broker-dealer with lists of maturing certificates of deposit (CDs) and lists of likely prospective investors, financial statements, and account balances, which the broker-dealer used to target bank customers to purchase securities. During the course of the solicitation, the broker-dealer employees mischaracterized the nature of the investments sold. As a result, many elderly customers were moved from bank CDs to high-risk mutual funds or other unsuitable investments. The defendants settled the Commission's enforcement action for violations of the antifraud provisions by paying a civil money penalty of \$4 million.²⁶⁶

²⁶⁴ See, e.g., Robert O'Harrow, Jr., *Drivers Angered Over Firms' Purchase of Photos*, WASH. POST, Jan. 28, 1999, at E1 (as residents complained, state authorities sought to retrieve millions of drivers' photographs that they sold to a private company); James Frederick, *Chain Pharmacy: Patient Privacy Debate Raises Pharmacy Concerns Among State, Federal Legislatures*, DRUG STORE NEWS, Apr. 27, 1998, at C1 (drug chains stopped selling patient prescription records to marketers after consumers complained); Ted Bridis, *Microsoft Fixing Windows System to Correct Privacy Problem*, AP NEWSWIRE, Mar. 7, 1999; Ted Bridis, *Watchdog Group Says it Won't Pursue Microsoft*, AP NEWSWIRE, Mar. 23, 1999 (Microsoft, a member of an industry seal program run by TRUSTe, will not face any sanctions); Charles Piller, *Top PC Makers Respond to Chip Privacy Concern with its Own Plan; Computers: Major Vendors Will Disable ID in Basic Software to Prevent Intel's Pentium III From Identifying Processor*, L.A. TIMES, Feb. 26, 1999, at C1 (Intel agreed to provide a software utility that turns off the unique serial number from the Pentium III chip that enabled individual users' transactions to be traced on-line; top computer makers are going further by disabling the ID); Saul Hannell, *As Web Sites Track Users' Habits, Privacy Advocates Wince*, INT'L. HERALD TRIB., Aug. 17, 1998, at 11 (AOL disclosed information about one of its members to the Navy); Kathy Kristof, *Wiping the Slate Clean; Privacy-Concerned Consumers Want Their Records Deleted from Controversial Lexis-Nexis Database*, CHI. TRIB., Nov. 19, 1996, at C7 (consumers overwhelmed Lexis-Nexis with requests to opt out of P-Trak, a product which would allow users to obtain personal information about individuals, including maiden names, current and previous addresses, birth dates, and some telephone numbers; Lexis stopped providing social security numbers, which it was listing at one point); *Sale of Data on Credit Card Customers is Examined. Marketing Firms Are Buying Information From Banks; Practice May be "Breaching Trust,"* ST. LOUIS POST DISPATCH, Sept. 28, 1999, at A1 (states attorney generals investigating whether banks that issue credit cards are selling data on customers' spending habits and creditworthiness to marketing firms); Hiawatha Bray, *Real Networks to Act on Data Concern*, THE BOSTON GLOBE, Nov. 2, 1999, at C3 (Real Networks, Inc. will change its product after it was discovered that it was transmitting information about its users' listening habits over the Internet).

²⁶⁵ Timothy L. O'Brien, *Big Bank Says it Won't Share Customer Data*, N.Y. TIMES, June 12, 1999, at C1.

²⁶⁶ In the Matter of NationsSecurities and NationsBank, N.A., Securities Act Release No. 7532 (May 4, 1998).

- GeoCities, a popular website that lets users create webpages for free, settled an action with the FTC for disclosing information to third-parties, contrary to its stated policy.²⁶⁷

In a recent series of enforcement cases, the Commission echoed the view that personal information is valuable because it allows companies to solicit potential customers. In deciding whether giving free stock to website visitors who provided certain personal information triggered a registration requirement under the Securities Act of 1933, the Commission determined that personal information could fairly be viewed as “consideration” for the stock.²⁶⁸

C. Recently Enacted Legislation Affecting Privacy

Congress considered consumers’ privacy concerns in the Gramm-Leach-Bliley Act.²⁶⁹ The Gramm-Leach-Bliley Act repealed many of the restrictions imposed by Glass-Steagall on broker-dealers, banks, and insurance companies while continuing to permit information sharing between affiliates and agents of financial institutions.²⁷⁰ However, the Gramm-Leach-Bliley Act contains restrictions aimed at restricting the disclosure of “nonpublic personal information”²⁷¹ to unaffiliated third parties.

Briefly, the Gramm-Leach-Bliley Act has four main components. First, it requires all financial institutions to disclose to customers their policies and practices to protect customers’ nonpublic personal information. Second, it limits sharing of nonpublic personal information with an unaffiliated third party. One of these limitations would require an investor to be notified in writing or electronically and have the opportunity to opt out of such disclosure, before the disclosure occurs. This requirement would be subject to certain significant exceptions, however, allowing financial institutions to continue much of the information

²⁶⁷ In the Matter of GeoCities, File No. 9823015 (FTC 1998).

²⁶⁸ SEC v. Joe Loofbourrow, No. 9934, 1999 SEC LEXIS 1419 (SEC July 21, 1999); SEC v. Theodore Sotirakis, No. 9935, 1999 SEC LEXIS 1414 (SEC July 21, 1999); SEC v. WowAuction.com and Steven Michael Gaddis, Sr., No. 9936, 1999 SEC LEXIS 1420 (SEC July 21, 1999); SEC v. Web Works Marketing.com and Trace D. Cornell, No. 9937, 1999 SEC LEXIS 1424 (SEC July 21, 1999).

²⁶⁹ For a further discussion of regulators and market participants’ views on financial privacy legislation, *see* Financial Institutions Subcommittee Hearing on Financial Privacy, Subcommittee on Banking and Financial Services, 106th Cong. (1999) <<http://www.house.gov/banking/72099wit.htm>> and <<http://www.house.gov/banking/72199wit.htm>> (visited Nov. 1, 1999).

²⁷⁰ Financial institutions are broadly defined and include broker-dealers, investment companies, banks, thrifts, savings and loans, and insurance companies, among others.

²⁷¹ “Nonpublic personal information” is defined as “personally identifiable information: (i) provided by a consumer to a financial institution; (ii) resulting from any transaction with the consumer or any service performed by the consumer; or (iii) otherwise obtained by the financial institution.” The term does not include publicly available information. Section 509(4).

sharing that occurs today.²⁷² Third, the Gramm-Leach-Bliley Act requires the federal financial regulators, including the Commission and the banking agencies, to: (1) issue standards to safeguard customer information; (2) issue regulations to implement the provisions; and (3) study information sharing among financial institutions and their affiliates and the adequacy of proposed regulations to prevent the unauthorized disclosure of customer financial information. Fourth, the privacy provisions of the Gramm-Leach-Bliley Act do not supersede any state law that provides any higher level of privacy protection than the Act provides.

The Gramm-Leach-Bliley Act requires the Commission, along with other regulators, to adopt rules to implement the privacy provisions of that Act to prevent pretext calling and the unauthorized disclosure of financial information, and to establish standards to address administrative, technical, and physical safeguards involving customer confidentiality.

D. On-Line Broker-Dealers' Privacy Policies

A survey of privacy policies and information practice statements posted by the ten largest on-line firms was conducted on November 15, 1999.²⁷³ A privacy policy is generally a comprehensive disclosure describing the broker-dealer's policies and practices regarding the collection and use of investor information. An information practice statement is a statement focused on a more limited area, such as data security.²⁷⁴ The following analysis of the content of privacy disclosures addressed the FTC principles of fair information practice:²⁷⁵

1. **Notice:** included statements informing the investor of information collected, how the information was collected, how the collected information would be used, and whether the firm addressed the use of "cookies."
2. **Choice:** included statements informing investors whether they could opt out of being contacted by the firm for marketing or other purposes, or disclosure to third parties.

²⁷² For example, the Gramm-Leach-Bliley Act would permit information sharing with an unaffiliated third party that markets products or services in a joint agreement with the financial institution. The Act does not affect information sharing under the Fair Credit Reporting Act of 1970. The Act generally prohibits disclosure of the most personal financial data, such as credit card, deposit or other transaction account numbers, for third party marketing purposes. The prohibition contains a number of exceptions, however, including an exception for disclosure to a reporting agency.

²⁷³ See *Appendix 4* for a more complete discussion of the findings.

²⁷⁴ For example, an information practice statement regarding security may state, "all on-line transactions with the firm require a secure connection."

²⁷⁵ No comparison should be drawn with surveys conducted by the FTC and federal bank regulators because the scope differs materially. Each website was reviewed twice by two different reviewers and any differences were reconciled. These principles have been articulated in various privacy surveys of on-line sites. See *supra* notes 254 and 260.

Also included statements informing investors whether the information collected could be used for purposes other than that for which it was originally collected.

3. **Access:** included statements informing investors how they might ask questions about or review their own personal information. Access also included how investors could correct inaccuracies in personal information maintained by the firm.
4. **Security:** included statements informing investors about security over their personal information both during on-line transmission and while it was stored at the broker-dealer. This category could include statements related to the use of a secure server.
5. **Contact:** included statements informing investors how they could submit questions or complaints about privacy.²⁷⁶

The review considered: 1) where the firm posted a privacy notice and the location of the notice; and 2) the content of the privacy notice.

Overview:

- Eight of ten firms have a privacy policy. All ten firms have an information practice statement.
- The principles most frequently addressed in privacy disclosures were security (nine firms) and notice (eight firms).
- With respect to comprehensiveness of privacy disclosures: one firm addressed one of the principles; one firm addressed two principles; two firms addressed three principles; four firms addressed four principles; two firms addressed all five principles.
- Three of ten firms offered investors the ability to opt out of information sharing with third parties; two of ten firms offered the opportunity to opt out of secondary uses of information within the institution.

²⁷⁶ The survey substituted “contact” for the FTC information practice of “enforcement.”

E. Roundtable Participants' Views

In an effort to boost customer confidence in using the Internet, one of the roundtable participants created a privacy seal that participating merchants can use on their website if they adhered to certain policies²⁷⁷. In order to receive a seal of approval, a company would need to disclose: (1) the information being collected; (2) the use of the information; and (3) whether the information is shared with anyone. Consumers also must be given the opportunity to: (1) object to information sharing for unrelated purposes; (2) verify the accuracy of their information; and (3) verify that the site has reasonable security measures to protect the information. The privacy seal also provides third-party consumer recourse in case that firm breaches its privacy obligation.²⁷⁸

The single participant present on that day who had the seal did not represent a broker-dealer.²⁷⁹ According to the participant whose company created the privacy seal, broker-dealers had been reluctant to sign up because they view themselves as already highly regulated and trusted. This participant also stated that, although brokerage firms have not expressly adopted the privacy seal, they have told her that they generally subscribe to the privacy policies underlying that seal.

A broker-dealer participant stated that because the Internet already has much potential to collect personal information, there has to be some way for people to opt out of providing information. There are legitimate circumstances under which a person would want to remain anonymous, such as when researching information about a parent's medical condition. In the near term, this participant believed that the FTC should be the agency that continues to take the lead in formulating a uniform privacy policy.²⁸⁰ The participant believed that information *security* used to be the primary concern with on-line customers. However, the participant stated that information *privacy* is now the primary concern, which, in his view, means that the industry has done a good job of addressing consumer's concerns about encryption and secure service.

One broker-dealer participant contended that firms collect personal information already and have a fiduciary obligation to keep the information private -- on-line or off-line. He

²⁷⁷ This participant advocates self-regulation and aims to avoid new privacy regulation.

²⁷⁸ The privacy seal sponsor requires consumers to contact the website first to resolve the dispute. If the consumer is not satisfied, he may then complain to the privacy seal sponsor. The sponsor will investigate the complaint. The privacy seal sponsor may require a compliance review by an accounting firm, revoke the site's seal, refer the complaint to regulators, or sue the website for breach of contract or trademark infringement.

²⁷⁹ Since the roundtable occurred, one of the broker-dealer participants has adopted a privacy seal.

²⁸⁰ The Gramm-Leach-Bliley Act, however, requires the functional financial regulators to set policy for institutions under their jurisdiction.

believes that it is more important to have information *security* rather than information *privacy*.²⁸¹

Another participant observed that a 1984 Commission release requires the industry to take reasonable steps to protect customers' information.²⁸² According to this participant, broker-dealers do not let customers opt out of information sharing because they need to gather a customer's personal information for suitability and for other purposes.²⁸³ In fact, the participant stated that a broker-dealer would violate SRO rules of suitability and fair practice by not collecting certain customer information.

One participant objected to the application of a higher standard by regulators to broker-dealers than to banks. According to this participant, banks engage in a lot of data mining already, so a higher standard should not be imposed lest it constrain similar activities by broker-dealers.²⁸⁴

F. Conclusion and Recommendations

1. Conclusions

To date, one SRO has brought an enforcement action against a registered representative for, among other things, improperly disclosing customer account information without the customer's knowledge.²⁸⁵ Pursuant to the Gramm-Leach-Bliley Act, however, the Commission is required to promulgate rules that would allow it to bring enforcement actions against firms that fail to disclose their privacy policies. Although only a few investors have complained to Commission staff about perceived invasions of privacy, the incidents noted in Section B of this discussion suggest that consumers are concerned about the confidentiality of their financial information.

²⁸¹ The broker-dealer participant was frustrated by the ability of individuals to remain anonymous while in on-line discussion forums because an anonymous poster had disseminated misinformation about his employer.

²⁸² See *Computer Brokerage Release*, *supra* note 1.

²⁸³ The participant did not consider, however, that a firm can meet its regulatory requirements without sharing the gathered information.

²⁸⁴ In a 1998 survey of 300 commercial banks, Meridien Research found that 300 commercial banks had spent approximately \$1.1 billion on "customer relationship management" software and that they expected to spend approximately \$1.5 billion by 2003. See Chuck Espstein, *Financial Services Firms Take Aim at Customers*, WALL ST. & TECHNOLOGY, at 36. See also Trends section at 1-1.

²⁸⁵ In re Albert Anthony Dello Russo, NYSE Panel Decision 96-23 (March 5, 1996).

2. Recommendations

- The Commission should obtain and evaluate the information collection practices of on-line firms.²⁸⁶
- The Gramm-Leach-Bliley Act requires the Commission and other functional regulators to jointly issue a report on the state of privacy regulation in the United States. In preparing the study, the Commission should consider the data gathering practices of on-line firms and any burdens that firms would incur by letting customers opt out of information sharing. The Commission also should review any complaints from customers that firms have received about their information collection practices.

²⁸⁶ This Report does not take a position as to whether the Commission should evaluate off-line firms' information collection practices.

IX. PORTALS

A. Background

Portals, as gateways to the Internet, have been described as key to providing financial services on-line. Portals also are significant competitors to on-line broker-dealers and banks in the battle to catch viewers, also known as attracting “eyeballs.”²⁸⁷ According to a recent survey, the three most visited financial portals were AOL’s Personal Finance, Quicken.com, and Yahoo! Finance.²⁸⁸ Portals charge broker-dealers, as well as other on-line merchants, to link from their sites. Their ability to generate revenue depends on attracting an increasingly large numbers of viewers, as indicated in Table IX-1:

²⁸⁷ See Chris Costanzo, *Banks on Web Rush into Deals for Pricey Portal Real Estate*, AM. BANKER, Aug. 10, 1999, at 1 (discussing the threat posed by portals to banks); Carol Power, *Internet Giant AOL Digs Deeper Into Virtual Financial World*, AM. BANKER, Aug. 11, 1999, at 1 (AOL finance channel, with ten million monthly users, is the most popular site for financial news; AOL would consider delivering financial services like banking if it would help its customers); Adriana Senior, *Yahoo Sees Itself as Partner, Not Rival, of Banks*, AM. BANKER, Aug. 12, 1999, at 1; Nick Wingfield, *Portal Sites Reap the Rewards of Strategies of Getting ‘Sticky,’* WALL ST. J. INTERACTIVE EDITION., Dec. 7, 1998 (portals attract repeat users by offering features such as free e-mails, home pages, personalization features, on-line calendars, and even incentive programs, thereby creating “high switching costs” or disincentives to going to a competitor); Bob Tedeschi, *As Web Portals Push to Sell More Goods Themselves, On-Line Merchants That Pay for the Sites for Access Have Grown Uneasy*, N.Y. TIMES, Apr. 21, 1999, at 4 (Internet merchants fear that portals will compete with them by selling goods directly to their users, will try to keep consumers on the portal sites rather than sending them to the merchant’s site).

²⁸⁸ In a July 1998 survey, more than two million on-line investors (out of 18.1 million) cited AOL’s Personal Finance area as the most frequently visited site for managing their finances, more than five times as large as the next financial portal. AOL had 32.5% of market share. The two other most visited financial portals were: (1) Quicken.com (13.5% of market share), and (2) Yahoo! Finance/My Yahoo! (10.8% of market share). See *Portals Are Key to Financial Services* <<http://www.cyberdialogue.com/press/releases/portals.html>>. Microsoft’s Money currently has about 7.8 million users while Intuit’s Quicken has 12.2 million users. See Carol Power, *Microsoft, Quicken Update Personal Finance Software*, AM. BANKER, Sept. 3, 1999, at 11.

Table IX-1: Portal Traffic Trends

Portal Traffic Trends			
Traffic		December '98 to July '99 Change	
Portal	December '98 Visitors	July '99 Visitors	Percent Change
Yahoo	32,266,000	+5,423,000	+20.2%
AOL.com	30,226,000	+1,971,000	+7.0%
MSN.com	28,868,000	+8,161,000	+43.6%
Netscape.com	19,284,000	+1,736,000	+9.9%
Go.com	19,176,000	-677,000	-3.4%
Lycos	15,057,000	+1,905,000	+14.5%
Excite	14,569,000	+183,000	+1.3%
AltaVista	9,091,000	-2,126,000	-19.0%
Snap.com	8,782,000	+3,396,000	+63.1%
LookSmart	8,302,000	+4,399,000	+112.7%
Go2Net	3,390,000	+988,000	+41.1%
<i>Total Web Users</i>	62,895,000	+6,114,000	+10.8%

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Top portals' growing clout in attracting viewers to their sites is evidenced by their increasing share of Internet advertising revenue. In the first quarter of 1999, the top 10 portals collected 75 percent of all Internet advertising revenue, as opposed to 64 percent a year earlier.²⁸⁹ In 1998, Ameritrade, DLJ*direct*, E*Trade, and Waterhouse Securities each signed \$25 million advertising contracts with AOL.²⁹⁰ Citibank followed with a \$30 million multiyear agreement with Netscape's NetCenter.²⁹¹ In the first of a series of deals with finance portals, Merrill Lynch paid an undisclosed amount to be the "premier financial provider" on Microsoft's MoneyCentral site.²⁹² While portals attract a steady

²⁸⁹ Heather Green and Linda Himelstein, *To the Victors Belong The Ads*, BUS. WK., Oct. 4, 1999, at 39.

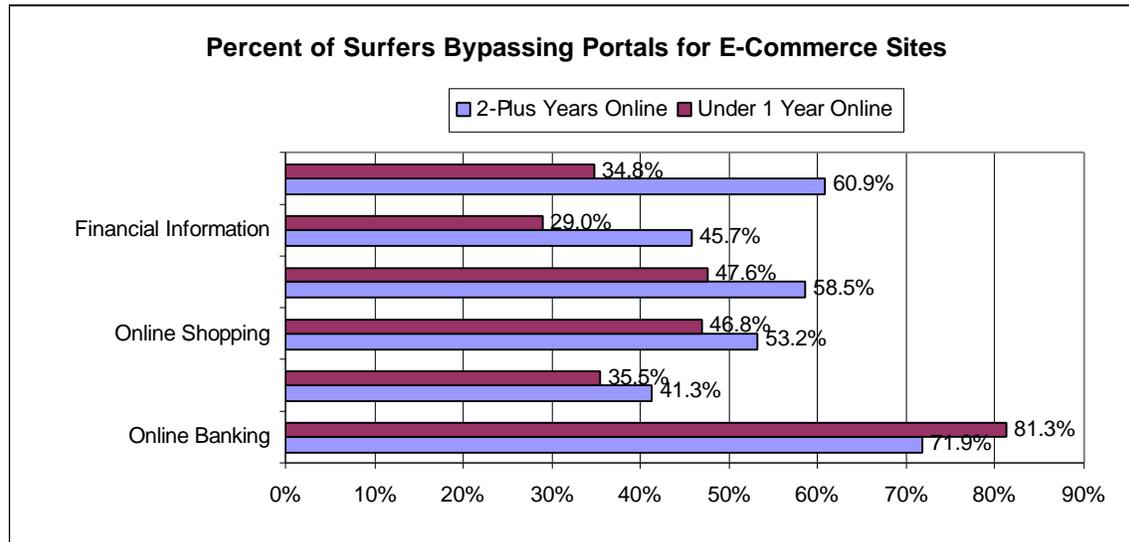
²⁹⁰ See J. William Gurley, *The Soaring Cost of E-Commerce*, FORTUNE, Aug. 3, 1998, at 226; Chris Costanzo, *supra* note 287 (the four broker-dealers would have to sign up 100,000 customers through AOL at an average cost of \$250 per investor to recoup their investment in the partnership agreement with AOL).

²⁹¹ *Netscape and Citibank Announce Major Worldwide Agreement to Launch Personal Finance Channel on Netscape Netcenter*, PR NEWSWIRE, Aug. 11, 1998. *Internet Giant AOL Digs Deeper Into Virtual Financial World*, AM. BANKER, Aug. 11, 1999, at 1 (agreement requires Citigroup to pay as long as Netscape's NetCenter channel meets certain goals, such as customer account sign up); *New Portal Strategy Formed with Netscape/Citibank Deal*, NEWSBYTES, Aug. 11, 1998 (pay for performance strategy gives Netscape an incentive to help Citibank acquire customers).

²⁹² Margaret McKegney, *Merrill to Pursue Portal-Based Marketing Strategy*, FIN. NETNEWS, Jan. 1, 1999, at 1.

stream of users, the fees charged by portals may result in high account acquisition costs for the broker-dealers and do not necessarily result in loyal visitors to the portals. As a result, a number of broker-dealers have decided not to renew their contracts with portals.²⁹³

Chart IX-1



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In addition to attracting “eyeballs,” portals try to create “stickiness” by aggregating content to create customer loyalty.²⁹⁴ From a user’s perspective, little substantively distinguishes the content of a portal from that of a broker-dealer. For example, in addition to providing links to broker-dealers, portals may post stories on investing prepared by broker-dealers; lists of stocks that portfolio managers are currently buying; news on industry sectors and trends; and on-line discussion forums dedicated to certain stock or industries. In addition, these sites often provide model portfolios (with specific stock recommendations) plus fund and company research (including earnings estimates, price and news alerts, charts, and research reports). Portals also may allow users to discuss investments with each other in on-line discussion forums.²⁹⁵ Some portals even allow investors to download portfolios from different brokerage accounts into a consolidated on-line portfolio manager that remains on the portal rather than with the

²⁹³ See Power, *supra* note 284; see also, Heather Green and Linda Himmelstein, *Portals Are Mortal After All*, BUS. WK., June 21, 1999, at 144 (website merchants are rethinking their contracts with portals as deals get pricier).

²⁹⁴ Nick Wingfield, *supra* note 287.

²⁹⁵ See On-Line Discussion Forums section, *supra* at pages 1-1.

ultimate financial services provider.²⁹⁶ An investor cannot, however, execute a securities transaction through a portal unless the portal is registered as a broker-dealer.

B. Current Regulatory Requirements

Portals are not currently registered with the Commission as broker-dealers under Section 15(a) of the Exchange Act. They operate pursuant to certain conditions that do not trigger registration.²⁹⁷ The Exchange Act broadly defines a “broker” to include any person, other than a bank, engaged in the business of effecting transactions in securities for the account of others.²⁹⁸ Although the Exchange Act does not explain what it means to “effect transactions in securities,” courts and commentators have interpreted the term broadly to mean participating in meaningful ways at key points in securities transactions.²⁹⁹ Making such a determination requires an analysis of the role the entity plays at each stage of securities transactions.

In determining whether an entity is a broker, courts and commentators also have considered whether an entity maintains custody of customer funds and securities and whether it receives transaction-based compensation for its participation in securities transactions.³⁰⁰

In addition, an entity that is compensated in a way that gives that entity a salesperson’s stake in the transaction is generally considered to be acting as a broker-dealer. A person has a salesperson’s stake if he receives any number of fees, including a referral fee or a fee based on the number of shares or dollar value of an executed order.³⁰¹ A referral fee paid to a portal based on the number of new customer accounts that the

²⁹⁶ See Microsoft MoneyCentral <<http://moneycentral.msn.com>>; Yahoo! Finance <<http://finance.yahoo.com>>; Quicken.com <<http://quicken.com>> (visited Oct. 1, 1999). Microsoft’s MoneyCentral also features an Advisor Finder Service which matches investors with prescreened investment advisors. See also Matthew Schifrin, *Getting Started*, FORBES, Sept. 13, 1999, at 32 (list of top financial portals).

²⁹⁷ 15 U.S.C. § 78o (1999).

²⁹⁸ Section 3(a)(4) provides that, “the term ‘broker’ means any person engaged in the business of effecting transactions in securities for the account of others, but does not include a bank. 15 U.S.C. § 78c (1999). Section 3(a)(5) provides that, “the term ‘dealer’ means any person engaged in the business of buying and selling securities for his own account, through a broker or otherwise, but does not include a bank, or any person insofar as he buys or sells securities for his own account, either individually or in some fiduciary capacity, but not as a part of a regular business.” 15 U.S.C. 78c. The terms are oftentimes combined as “broker-dealer.”

²⁹⁹ Massachusetts Financial Services Inc. vs. SIPC, 411 F. Supp. 411, 415 (D. Mass.), *aff’d*, 545 F.2d 754 (1st Cir. 1976), *cert. denied*, 431 U.S. 904 (1977).

³⁰⁰ *Id.*

³⁰¹ *Id.*

broker-dealer opens as a result of the placement of the broker-dealer's hyperlink on a portal could cause the portal to be a broker-dealer.

Portals that link to electronic commerce sites (other than on-line brokerages) often enter into revenue sharing arrangements. Typically, the on-line merchant pays the portal a fee for every completed transaction generated by the portal's site. If a portal entered into a similar revenue-sharing arrangement with a broker-dealer, it would be deemed to be receiving transaction-based compensation and would have to register as a broker-dealer.

In 1996, Commission staff granted no-action relief from registration to AOL, CompuServe, and the Microsoft website. The no-action letter permitted these companies to connect their subscribers to Charles Schwab & Co., Inc. and receive order-based compensation.³⁰² The 1996 *Schwab* no-action letter set the standard for the types of arrangements permissible between broker-dealers and ISPs, subject to certain conditions:

- The ISPs would receive a nominal flat fee per order transmitted. The fee would not vary depending on the number of shares or value of the underlying securities under a customer order transmitted to Schwab by the ISPs. The fee would not vary depending on whether the order resulted in an executed trade.
- Schwab would be responsible for all advertising and sales material relating to its financial services. The ISPs would provide these materials only with appropriate disclosure.
- The ISPs would not recommend or endorse specific securities.
- None of the ISPs would participate in the financial services offered by Schwab (other than by routing messages), including opening, maintaining, or closing accounts, or handling customer funds or securities.³⁰³

Although not explicitly stated, it appears that the no-action relief was premised on the theory that the ISP operated similarly to a phone line and a newspaper, simply carrying the message between the broker-dealer and the investor.

³⁰² Charles Schwab & Co., Inc., SEC No-Action Letter (Nov. 27, 1996).

³⁰³ *Id.*; see also, Charles Schwab & Co., Inc., SEC No-Action Letter (Sept. 18, 1997) (no-action relief granted to two research services to receive compensation based on the greater of a base monthly fee or a variable fee calculated by multiplying the number of active customer households by a nominal fixed dollar amount); StockPower, Inc., SEC No-Action Letter (Mar. 26, 1998) (no-action relief granted to software developer to charge a licensing fee to investors and transfer agents for program that would allow users to connect to transfer agents managing dividend reinvestment and stock purchase plans); Evare L.L.C., SEC No-Action Letter (July 29, 1998) (no-action relief granted to a provider of an on-line communication system linking market professionals to obtain quotes, enter orders, and communicate with custodians for a flat annual fee plus a usage fee per interaction with the system, regardless of whether a trade occurs).

C. Roundtable Participants' Views

1. Portals' Business Model

Roundtable participants representing a financial portal described their portal as a publisher of third party financial information. Their portal also hyperlinks to other sites that provide objective information. Their business model is an advertising business model, but they separate advertising from editorial control. They currently do not segment viewers into different classes, although they may try to do so in the future. In their view, customers trust some portals because they do not sell securities and because they are well-known for related financial management software. They noted that portals have broad market appeal because they provide information on a wide spectrum of financial products, such as banking, credit card monitors, mortgages, insurance, and retirement planners.

In response to a question from a broker-dealer participant, this portal representative stated that she does not believe that Open Financial Exchange (OFX) technology has changed the portal business model, although it has made it more attractive from a consumer's point of view.³⁰⁴ Customers can download information from their various accounts instead of manually inputting their account data monthly. OFX technology allows users to exchange transaction information among different websites. For example, a user with multiple brokerage or bank accounts could maintain a consolidated portfolio of personal account data with an Internet portal. A broker-dealer participants expressed concern that OFX technology will affect their relationship with investors because users will manage their finances on portals rather than on websites run by on-line broker-dealers or banks.

Although financial institutions may view portals as competitors, this portal's representatives stated that they do not see themselves as competing with financial institutions. The portal does not open accounts, allow customers to trade, or have a broker-dealer subsidiary. The operator of the portal registered one subsidiary as a financial advisor solely because the subsidiary provided asset allocation models for users.

One securities analyst had a different opinion. He described portals as a threat to the broker-customer relationship. This analyst believes that portals may set up on-line broker-dealers as affiliates in the future. According to him, this option might be more attractive to second-tier portals that do not generate much revenue for hyperlinking customers to different sites. He said that portals aggregate content on their own sites so that, as on-line broker-dealers do the same, portals may lose market share. The analyst noted that broker-dealers may partner with portals as an interim step, but in the long term would most likely want more control over their relationships with their customers.

³⁰⁴ OFX technology is a unified specification for the electronic exchange of financial data between financial institutions, businesses, and consumers on-line. See Open Financial Exchange <<http://www.ofx.net>> (visited Nov. 14, 1999).

2. Portals' Compensation Arrangements

The roundtable discussions focused on how broker-dealers currently compensate portals for driving traffic to their sites and how broker-dealers would prefer to compensate them. Currently, broker-dealers can compensate portals by paying a flat up-front fee or a nominal fee per order transmitted through the portal. Broker-dealer participants indicated that they wanted to compensate portals based on results for accounts actually opened. They argued that broker-dealers tend to pay up front fees to be featured on a portal. This means that firms compensate portals inefficiently because the Internet makes feasible pay-for-performance compensation arrangements.³⁰⁵ Broker-dealer participants also argued that technology is undermining the Commission's position that portals only can be paid based on orders transmitted (not based on account openings or orders executed), without having to register as a broker-dealer.³⁰⁶

One broker-dealer participant argued that the Commission should extend to portals the same regulatory relief that allows affinity groups to receive transaction-based compensation.³⁰⁷ Finally, broker-dealer participants argued that paying on the basis of account openings does not meet the broker-dealer activity test of effecting securities transactions for the accounts of others. One broker-dealer participant contradicted this argument by noting that visitors can view most of its site without opening an account, consequently disabusing the notion that a viewer would not open and fund an account just to access an incremental amount of information.

³⁰⁵ Broker-dealers believe that they can pay based on the portals' performance today by multiplying the number of orders transmitted by the probability that an order will be executed.

³⁰⁶ See e.g., *Advertising that Clicks*, THE ECONOMIST, Oct. 9, 1999, at 71 (Internet may instantly reveal whether advertising is working); Randall Rothenberg, *An Advertising Power, but Just What Does Doubleclick Do?* N.Y. TIMES, Sept. 22, 1999, at 14 (discussing technology to track success of Internet advertising); PATRALI CHATTERJEE, MODELING THE CLICKSTREAM: IMPLICATIONS FOR WEB-BASED ADVERTISING EFFORTS (May 1998) <<http://ecommerce.vanderbilt.edu/papers/pdf/clickstream/pdf>>.

³⁰⁷ Commission staff has granted no-action relief from broker-dealer registration to affinity groups that enter into compensation arrangements with broker-dealers. No-action relief in those instances is conditioned on the fact that these non-profit affinity groups do not perform financial services. The line of affinity group "no-action" letters are not analogous situations to the broker-dealer-portal arrangements. Broker-dealers affiliate with portals to drive viewers to the broker-dealers' sites so portals would be considered to be performing "financial services." See, e.g., Atkisson, Cartney & Akers, SEC No-Action Letter (June 23, 1998).

D. Conclusions and Recommendations

1. Conclusions

The growing relationship between portals and broker-dealers is beginning to create pressure for the Commission to relax its historical prohibition against receipt of transaction-based compensation by non-broker-dealers. Commercial websites that are not related to the securities business are generally shifting from basing their payment for advertising on cost per thousand impressions (“CPM”) to actual transactions consummated.³⁰⁸ This trend can be attributed to the fact that web users generally ignore banner ads, clicking on fewer than one out of every 100 that they see.³⁰⁹

A recent report issued by Forrester Research found that on-line merchants currently pay for about 15 percent of advertising based on performance. That number is expected to rise to over 50 percent by 2003.³¹⁰ According to the report, the *quid pro quo* may be that content providers demand higher levels of revenue sharing from on-line merchants for on-line purchases.³¹¹ A number of on-line merchants already pay a percentage of the sale to websites from which visitors hyperlink.³¹² A new advertising

³⁰⁸ Tedeschi, *As Web Portals Push to Sell More Goods Themselves*, *supra* note 287 (“Revenue sharing, wherein merchants pay portals for a small fee for each transaction generated, is an increasingly common arrangement between portals and their partners, analysts say.”); J. William Gurley, *Above The Crowd*, FORTUNE, May 11, 1998, at 170 (discusses reasons performance-based advertising will succeed on the Internet).

³⁰⁹ Richard A. Shaffer, *Listen Up! Pay Attention! New Web Startups want Ads That Grab You*, FORTUNE, Oct. 25, 1999, at 348 (notes that banner ads are adapting themselves to attract more viewers).

³¹⁰ See Yochi Dreazen, *On-line Ad Spending is Expected to Surge*, WALL ST. J. EUROPE, Aug. 13, 1999, at 4.

³¹¹ *Id.*

³¹² “Affiliates place your graphics and code somewhere on their Web site. When visitors click that link and buy a product (or, in some cases, complete a questionnaire), the affiliate gets a percentage of the sale, or, in the case of the questionnaire, a flat fee. Some software programs track repeat customers and pay your affiliates accordingly.” Dennis Berman, *A Point-and-Click Sales Force*. BUS. WK., June 28, 1999, at F14; Mylene Mangalindan, *Web Sites Willing to Pay for Referrals*, THE SEATTLE TIMES, Sept. 10, 1999, at C3 (Amazon.com has more than 320,000 affiliates which earn from five to fifteen percent of a sale); *E*Trade/Amazon.com -2: Accessible Through E*Trade Site*, DOW JONES NEWS SERVICE, Oct. 14, 1999 (E*Trade and Amazon.com agree to create a co-branded bookstore on E*Trade’s website); Gary B. Smith, *Monday Musings: When We All Agree on Dell, It’s Time to Start Worrying*, THE STREET.COM, Sept. 20, 1999, (LEXIS, News Library, 90 Day File) (TheStreet.com has a revenue sharing arrangement with Amazon.com).

model has also emerged in which merchants pay a combination of CPM and pay-for-performance.³¹³

Broker-dealers want to compensate portals based on the success of their advertising, which appears to be the trend in compensation arrangements between portals and non-broker-dealers. As one commercial bank executive noted, this approach gives portals an incentive to help its partner acquire customers.³¹⁴ It is precisely this salesman's stake, however, that is a significant factor in determining what triggers broker-dealer registration.

2. Recommendation

- The Commission should consider the types of permissible compensation arrangements between broker-dealers and unregistered entities given that technology will let on-line merchants measure the success of Internet advertising models with a high degree of specificity.

APPENDIX 1

Table of On-Line Broker-Dealers*

On-Line Broker-Dealer	Home Page URL
1st Discount Brokerage, Inc.	www.1st-discount.com
Mutual Securities, Inc. (Cowles Sabol)	www.mutualsec.com
A.B. Watley, Inc.	www.abwatley.com
Accutrade, Inc.	www.accutrade.com
Advisors Group, Inc. (The)	www.advisorsgroup.com
Alex Moore & Company, Inc.	www.livetrade.com
Amber Securities Corporation	www.swiftrade.com
America First Associates	www.aftrader.com
American Century Brokerage	www.brokerage.americancentury.com
American Express Co.	www.americanexpress.com/direct
Ameritrade, Inc.	www.ameritrade.com,www.ebroker.com
AmeriVest, Inc.	www.amerivestinc.com
Amerivet Securities Inc.	www.amerivet.com

³¹³ In that model, the web merchant pays a lower CPM rate but gives the publisher seven to eight percent of any sales directly attributable to the banner advertising. Greg Farrell, *Ad Rates on Web May be Pay-per-view Performance-based Ad Prices Change Advertising Game*, USA TODAY, Sept. 1, 1999, at 1B.

³¹⁴ Bob Woods, *New Portal Strategy Formed With Netscape/Citibank Deal*, NEWSBYTES, Aug. 11, 1998 (LEXIS, News Library, Curnws File).

AmSouth Investment Services, Inc.	www.amsouth.com
Andrew Peck Associates Inc.	www.andrewpeck.com
Arvest Investments	www.netvest.com/arv
Atlantic Financial of Mass.	www.af.com
Bank One Securities Corporation	www.oneinvest.com/home.html
BB&T Investment Services, Inc.	www.bbandt.com
Benjamin & Jerold Brokerage, Inc.	www.stockoptions.com
Benson York Group, Inc.	www.mostactives.com, www.buystocks.com
Bidwell & Company	www.bidwell.com
Brook Street	www.brookst.com
Brown & Company Securities Corporation	www.brownco.com
Bull & Bear Securities, Inc.	www.ebullbear.com
Burke, Christensen and Lewis Securities, Inc.	www.bclnet.com/fincenter.htm
Bush Burns Securities, Inc.	www.bushburns.com
Capital West Investment Group, Inc.	www.cwigroup.com/trading.htm
Charles Schwab & Co., Inc.	www.eschwab.com; www.schwab.com
Chase Manhattan Corp.	www.chase.com
CIGNA Financial Services, Inc.	www.cigna.com/cfs/broker/index.html; www.bhcihc.com/cig
Citicorp Investment Services	www.citibank.com/us/investments/ home.htm
Comerica Securities	www.comerica.com/invest/dbol.html
Compass Bank	www.compassweb.com
Crestar Securities Corporation	www.crestar.com/crestainvest
CyBerBroker, Inc.	www.cybercorp.com
Datek Securities Corp.	www.datek.com
Dain Rauscher (announced - not live)	www.dainrauscher.com
Delta Equity Services Corporation	www.deltaequity.com
Dime Securities, Inc.	www.dimesec.com
DLJdirect, Inc.	www.dljdirect.com
Downstate Discount Brokerage, Inc.	www.trade4less.com
Dreyfus Brokerage Services, Inc.	www.edreyfus.com
Dreyfus Investment Services Corp.	www.disc.mellon.com
E*Trade Securities	www.etrade.com
Emmet A. Larkin Company, Inc.	www.internettrading.com
Empire Financial Group, Inc.	www.lowfees.com
FarSight Financial Services, L.P.	www.nfsn.com
Fidelity Brokerage Services, Inc.	www.fidelity.com
Fifth Third Securities, Inc.	www.53.com/advisors/brokerage; www.bhcihc.com
First Capital Brokerage Services, Inc.	www.firstcapitalbrokerage.com
First Flushing Securities, Inc.	www.firstflushing.com; www.firsttrade.com
First Georgetown Securities, Inc.	www.firstgeorgetown.com
First Security Investor Services	www.bhcihc.com/fir
First Tennessee Brokerage, Inc.	www.firsttennessee.com/
Freedom Investments, Inc. (Trade Flash)	www.freedominvestments.com
Freeman Welwood & Co., Inc.	www.freemanwelwood.com
G H Securities, Inc.	www.ghsecurities.com.ky
G.W. & Wade Asset Management Company	www.gwwade.com
Grace (R. K.) & Co. (Cardinal Capital) (in development)	www.cardinalcapital.net
Heim & Young Securities, Inc.	www.heimandyoung.com
Herzog, Heine, Geduld, Inc.	www.maxule.com/htdocs/trade1.html
Howe Barnes Investments, Inc.	www.netinvestor.com
Huntington Investment Company (The)	www.huntington.com
Instinet (announced - not live)	www.instinet.com
Investex Securities Group, Inc.	www.investexpress.com

Investin.com Securities Corp.	www.investin.com
Investrade Discount Securities	www.netvest.com/rg2
J B Oxford & Company	www.jboxford.com
Jack White & Company	www.jackwhiteco.com
Keystone Brokerage, Inc.	www.keyfin.com/kfb
Lintz, Glover, White & Co., Inc.	www.lintztrade.com
Lynx Capital Corporation	www.lynxcapital.com/trading.htm
M. One Securities, Inc.	www.mone.com
Madison Securities, Inc.	www.madisonsecurities.com
Marsco Investment Corporation	www.marscoinvestments.com
Mercantile Investment Services, Inc.	www.mercantile.com
Merrill Lynch	www.merrilllynch.com, www.ml.com
McDonald & Company (announced - not live)	www.laurelkay.com
Morgan Stanley Dean Witter Online	www.online.msdw.com
Mr. Stock, Inc.	www.mrstock.com
Muriel Siebert & Co., Inc.	www.msiebert.com
MyDiscountBroker.com/Southwest Securities	www.mydiscountbroker.com
MyTrack	www.mtrack.com
National Discount Brokers	www.ndb.com
Nations Financial Group, Inc.	www.ffutures.com
NationsBanc	www.nationsbank.com/investments
NBC Capital Markets Group, Inc.	www.nbcbank.com
New Times Securities Services, Inc. (in development)	www.newtimessecurities.com
New York Life Securities, Inc.	www.bhcihc.com/nyl
Newport Discount Brokerage, Inc.	www.newport-discount.com
Norwest Investment Services, Inc.	www.edart.com/nisi
Old Kent Brokerage Services	www.bhcihc.com/oka
Online Trading Inc.	www.onlinetradinginc.com
People's Securities Inc.	www.peoples.com/invest/onlinetr.htm
Peregrine Financials & Securities, Inc.	www.peregrinefinancial.com
Peremel & Co.	www.peremel.com
Preferred Capital Markets, Inc.	www.deltatrader.com; www.tradeoptions.com
ProTrade Securities	www.protrade.com
Pyramid Financial Corporation	www.wyse-sec.com
Quick & Reilly, Inc.	www.quick-reilly.com
R.M. Stark & Co., Inc.	www.rmstark.com
Recom Securities, Inc.	www.trutrade.com
Regal Discount Securities	www.eregal.com; www.investrade.com
Robert Van Securities, Inc.	www.robertvan.com; www.robvanonline.com
Sagamore Trading Group, Inc.	www.time2trade.com
Salomon Smith Barney (Citicorp)	www.salomonsmithbarney.com
Scottsdale Securities, Inc.	www.scottrade.com
Scout Brokerage Services, Inc.	www.scoutbrokerage.com
Scudder Brokerage Services	www.scudder.com
Seaport Securities Corp.	www.sea-port.com
Searle & Co.	www.esearle.com; www.searlco.com
Securities Research, Inc.	www.securitiesresearch.com; esecuritiesresearch.com
Sloan Securities Corp.	www.sloansecurities.com
Southtrust Securities, Inc.	www.bhcihc.com/sou
State Discount Brokers	www.state-online.com
State Street Brokerage Services, Inc.	www.ssga.com
Stocks4Less	www.stocks4less.com
Summit Financial Services Group, Inc.	www.summitbank.com

Sun Trust	www.suntrust.com
Sunlogic Securities, Inc.	www.sunlogic.com
Suretrade, Inc. (Owned by Fleet Financial)	www.suretrade.com
T. Rowe Price Investment Services, Inc.	www.troweprice.com/brokerage/index.html
TF Partners (offered via Vanguard Capital)	www.taxfreebond.com
The Advisors Group, Inc. (TAG)	www.advisorsgroup.com
The R.J. Forbes Group, Inc.	www.forbesnet.com
Thomas F. White & Co., Inc.	www.computel.com; www.prodiscout.com
TradeCast	www.tradecast.com
Tradescape.com	www.tradescape.com
Tradestar Investments, Inc.	www.tradestar-trade.com;www.bhcihc.com/tsr
Trade-Well Discount Investing, LLC	www.trade-well.com
U.S. Clearing Corporation	www.mainstmarket.com; www.bsdmweb.com
U.S. Discount Brokerage, Inc.	www.usdb.com
U.S. Rica Financial, Inc.	www.usrica.com
U.S. Securities & Futures Corp., Chicago	www.ussecurities.com
UBOC Investment Services, Inc.	www.investathome.com/UBOCPages
Unified Management Corporation	www.umctrade.com; www.umcstock.com
UNISE Investment Corp.	www.unise.com
UVEST Investment Services	www.netbank.com/investments.htm
Vanguard Brokerage Services, Inc.	www.vanguard.com/vbs/online/
Vision Securities, Inc.	www.visiontrade.com
Wachovia Investments, Inc.	www.wachovia.com
Wall Street Access	www.wsaccess.com
Wall Street Discount Corporation	www.wsd.com
Wall Street Equities, Inc.	www.wsei.com
WallStreet Electronica Online Trading, Inc.	www.wallstreete.com
Wang Investments Associates, Inc.	www.wangvest.com
Waterhouse Securities, Inc.	www.waterhouse.com
Web Street Securities	www.webstreetsecurities.com
Wells Fargo Securities, Inc.	www.wellsfargo.com/wellstrade
Westminster Securities Corporation	www.livebroker.com
Wilshire Capital Management, LLC	www.wilshirecm.com
Wit Capital Corporation	www.witcapital.com
York Securities, Inc.	www.yorktrade.com; www.tradingdirect.com
Your Discount Broker	www.ydb.com
Ziegler Thrift Trading, Inc.	www.ziegler-thrift.com
Zions Investment Securities, Inc.	www.zionsdirect.com

*The Commission staff compiled this chart from a variety of sources.

This chart may not represent every on-line firm. In addition, some of the information may have changed since its compilation.

APPENDIX 2

Policies of Ten On-Line Broker-Dealers for Delivering Market Data Via the Internet to Retail Customers as of November 15, 1999*

On-Line Broker	Website Visitors	Account Holders	Features Available to Active Traders/High-Asset Accounts
Ameritrade	delayed quotes only	100 real-time quotes when opening an account; 100 additional quotes upon each trade; unlimited real-time quotes available for \$20.00/month	same
Charles Schwab	delayed quotes only	100 real-time quotes when opening an account; 100 real-time quotes upon each commissionable trade	Signature Service accounts with \$100K or more receive 200 real-time quotes upon each trade (number of quotes accumulates)
Datek Online	delayed quotes; streaming real-time quotes ^a	unlimited real-time quotes; streaming real-time quotes	same
DLJdirect	delayed quotes only	100 real-time quotes upon opening an account; 100 additional quotes per on-line trade; 500 additional quotes available for \$9.95; streaming real-time quotes available for \$24.95/month	Select Client accounts have access to streaming real-time quotes
E*Trade	delayed quotes only ^b	unlimited real-time quotes	Power E*Trade customers executing 30 trades/quarter receive streaming real-time quotes; those executing 75 trades/quarter have access to Nasdaq Level II quotes
Fidelity	delayed quotes only	unlimited real-time quotes	same; Active Traders executing 36 trades on a rolling 12 month basis have access to Nasdaq Level II quotes; InstantBroker wireless services users receive 100 real-time quotes/day in 30 securities
Morgan Stanley Dean Witter Online ^c	delayed quotes only	unlimited real-time quotes	same;
NDB	delayed quotes only	unlimited real-time quotes	same
SureTrade	delayed quotes only	100 real-time quotes/day	same
TD Waterhouse	delayed quotes only	unlimited real-time quotes	same

* Table based on materials available on-line, supplemented by a telephone survey.

^a Datek Online visitors must register to receive access to streaming quotes.

^b Non-account holding 'registered users' of E*Trade receive 100 real-time quotes/day.

^c Formerly Discover Brokerage Direct

APPENDIX 3

Enforcement Actions Involving On-Line Discussion Forums

Other Commission cases involving postings in on-line discussion forums include:

COMPLETED CASES

	Case Name	Summary of Commission Charge	Case No./Lit. Rel.
1	Scott A. Frye	Frye posted misleading messages on an Internet news group message board in an attempt to solicit investors for two Costa Rican coconut companies.	LR-14702, 10/30/95 LR-14720, 11/15/95 LR-15139, 10/29/96
2	Global Info. Services d/b/a Investment Hotlines	Respondents posted corporate profiles and press releases on an Internet web site.	33-7605, 10/27/98 33-7632, 1/21/99
3	Green Oasis Environmental et al.	Promoter inflated stock price by disseminating false press releases on Internet. Conducted unregistered partnership offering on company's website.	LR-15864, 9/1/98 LR-15876, 9/9/98
4	David A. Wood, Jr. and ICS Communications, Inc.	Wood sent spam and posted messages on an Internet bulletin board touting one issuer.	33-7601, 10/27/98
5	Intl. Heritage, Inc.	Defendants used an Internet website and postings to discussion forums to recruit approximately 155,000 members to a pyramid offering scheme.	LR-15672, 3/17/98 LR-16330, 10/7/99
6	Eugene B. Martineau	Defendant posted messages on an Internet bulletin board that touted one issuer in exchange for stock options.	33-7599, 10/27/98
7	Pleasure Time d/b/a Telephone Information	Defendants raised over \$3 million by using telephone calls, faxes, and Internet postings to recruit investors to participate in an international telephone lottery with projected receipts of \$300 million.	LR-14440, 3/15/95 LR-15178, 12/6/96
8	Donald B. Spencer and IVT Systems, Inc.	Offering fraud in which respondents used Internet bulletin board postings, newspaper ads and live presentations to promise 50% and greater returns from building an ethanol plant in the Dominican Republic.	LR-14856, 3/29/96 LR-15042, 9/12/96
9	Wye Resources, Inc. and Rehan Malik	Defendants used Internet bulletin board postings and ads in U.S. publications to solicit investors in an unregistered offering. The messages and ads misrepresented Wye's ownership interests in Zairian diamond mines.	LR-15073, 9/26/96

CASES IN LITIGATION

	Case Name	Summary of Commission Charge	Litigation Rel. No.
1	Remington Hall Capital Corp. and Douglas T. Fonteno	Fonteno, a convicted felon, raised at least \$1 million in a fraudulent offering of his company stock by promoting the sale of Remington Hall's stock through spams, bulletin board postings, and informational releases.	LR-15943, 10/22/98
2	Wayne Gorsek et al	Defendants touted 20 issuers through radio talk shows, cold calls, conference calls, and the Internet, where they posted newsletters, bulletin board messages, and research reports.	LR-16018, 1/7/99
3	Interactive Products and Services and Matthew P. Bowin	Defendants used Internet to conduct a fraudulent IPO.	LR-15700, 4/8/98
4	Intl. Automated Systems	Defendants issued false press releases that it had developed a new technology that would revolutionize electronic communications, which generated activity on Internet bulletin boards. During the period, the stock price rose from \$3.50 a share to \$40 a share.	LR-15898, 9/24/98
5	Liberty Capital Group, Inc. and Jason A. Greig	Greig published a newsletter, sent e-mails, and posted messages to Internet bulletin boards. Operated Internet web site that touted 9 issuers.	LR-15953, 10/27/98
6	Omnigene Diagnostics, Inc.,* Dominic Scacci* and Jerome Wenger	Defendants used the mail to disseminate false and misleading information concerning Omigene's financial condition, patents, and number of outstanding shares. The information was then repeated on an Internet bulletin board.	LR-15899, 9/24/98
7	Arete Industries, Inc.	False press releases regarding an impending acquisition, sales projections, and relations with retail sales outlets.	LR-16235, 8/2/99

* Parties who are no longer litigating and have settled proceeding.

APPENDIX 4

Privacy Survey Findings as of November 15, 1999

Privacy Notices:

We analyzed whether firms posted privacy disclosures. Privacy disclosures include privacy policies or information practice statements.

- Eight of ten firms post a privacy policy.
- All ten firms post an information practice statement.

Location of Disclosures:

- Four of ten firms provide a link to their privacy disclosure from the bottom of their home page.
- No firm provides a link to its privacy disclosure form from the top of its home page.
- Three of ten firms provide a link to their privacy disclosure from a page on the account opening statement.
- One firm links from both the home page and the account opening statement.
- Six firms link from either the home page or the account opening statement.
- Four firms do not link from either the home page or the account opening statement.

Content of Disclosures:

Notice:

- Six of ten firms say something about what information is collected from investors.
- Seven of ten firms say something about how information collected from investors will be used.
- Five of ten firms say something about the use or non-use of cookies.³¹⁵
- Eight of ten firms address at least one of the statements above regarding notice.
- Four of ten firms address all three statements above regarding notice.

Choice -- Secondary use:

- Six of ten firms state that they may use information collected about investors to contact them for marketing or for other purposes.
- Six of ten firms state that the information collected about investors may be disclosed to third parties, other than as required by law.
- Three of ten firms provide information about the types or names of third parties to whom information collected about investors will be disclosed, *other than as required by law*.
- Five of ten firms provide information regarding the limitations on, or the circumstances under which, information about investors will be disclosed to third parties.
- Eight of ten firms address at least one statement concerning secondary use.
- Two of ten firms address all four statements.

Choice -- Opt Out:

- Two of ten firms inform investors about any opportunity to exercise choice regarding whether they want to be contacted by the firm for marketing or for other purposes.
- No firm allows the investor to exercise this choice on-line.

³¹⁵

We did not verify whether or not the firm used cookies.

- Three of ten firms state that investors may exercise choice about whether collected information will be shared with third parties, *other than as required as law*.
- One firm explicitly allows the investor to exercise this choice on-line.
- Eight of ten firms address one of the elements of either *secondary use* or *opt out*.
- None of the firms address all of the elements of secondary use and opt out.

Access:

- Six of ten firms state that investors may ask questions regarding information collected about them.
- Two of ten firms state that investors may review information collected about them.
- Three of ten firms state how investors may proceed to correct any errors in the information collected about them.
- Seven of ten firms provide one of the access statements mentioned above.
- Two of ten firms provide all three access statements mentioned above.

Security:

- Nine of ten firms state something about steps taken to provide security for information during on-line transmissions between the investor and the firm.
- Eight of ten firms state something about steps taken to provide security for information while it is stored with the firm.
- Nine of ten firms provide one security statement mentioned above.
- Eight of ten firms provide both security statements mentioned above.

Contact Information:

- Two of ten firms address how to submit a question about privacy.
- One of ten firms addresses how to complain about privacy.
- Two of ten firms address one statement mentioned above.
- One firm addresses both statements mentioned above.

APPENDIX 5

On-line Trading Complaints Received by the Commission
Leading Complaint Categories
January 1, 1999 through September 30, 1999

	Complaint Type	Code	Number of Complaints
1.	Difficulty accessing account	D37	504
2.	Failures/delays in processing orders	D08	393
3.	Errors in processing orders	D09	247
4.	“Best Execution” problems	C03	155
5.	Errors/omissions in account records/documents	D15 / E06	116
6.	Transfer of account problems	D21 / E04	116
7.	Margin position sellouts	D25	105
8.	Problems with IPO allocations	C17*	103
9.	Problems with executing cancellation orders	D42*	94
10.	Problems with opening an account	D38*	89
11.	Inaccurate quotes/pricing information	D40	62
12.	Problems with depositing/withdrawing funds	D43*	57
13.	Use of false/misleading advertising material	C01	47
14.	Inadequate disclosure/understanding of margin	D23	40
15.	Failure to honor limit order	D36	38

*ACTs complaint codes D42 and D43 were established in March 1999. Complaint Codes D38 and C17 were added in the Fall of 1998.